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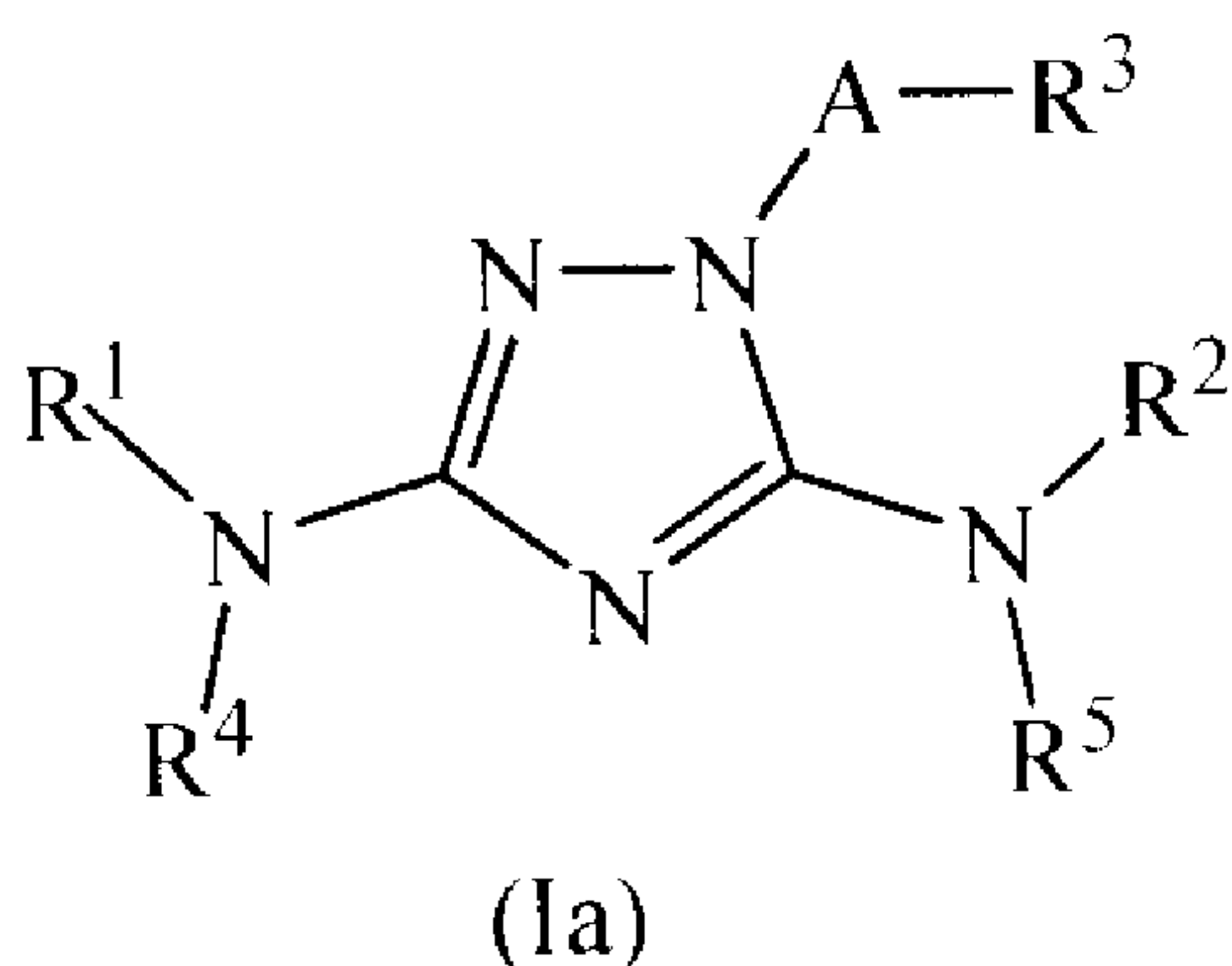
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(72) Inventeurs/Inventors:
SINGH, RAJINDER, US;
SYLVAIN, CATHERINE, US;
HOLLAND, SACHA, US;
ZHANG, JING, US;
PARTRIDGE, JOHN J., US;
CLOUGH, JEFFREY, US;
ARGADE, ANKUSH, US

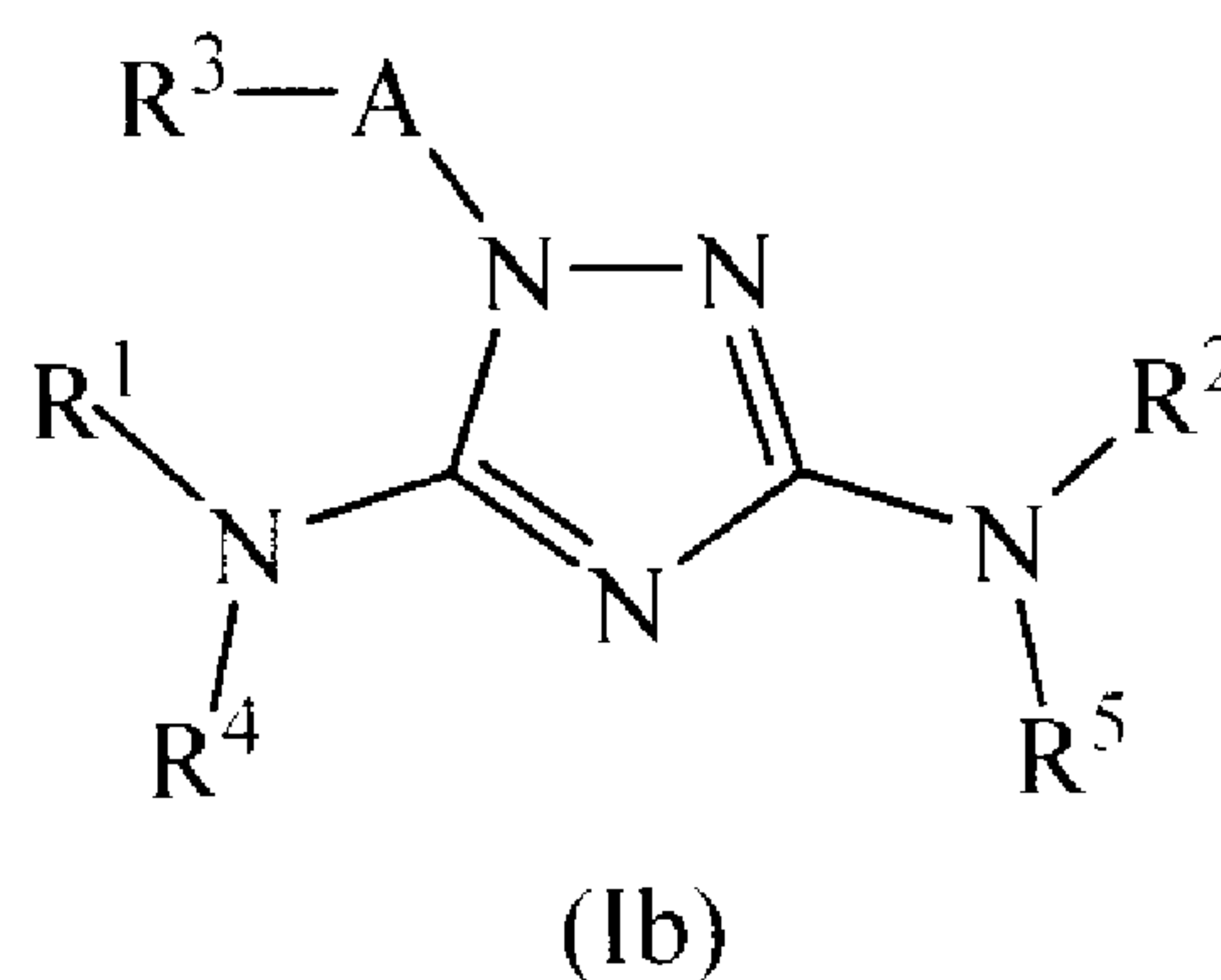
(73) Propriétaire/Owner:
RIGEL PHARMACEUTICALS, INC., US

(74) Agent: GOWLING LAFLEUR HENDERSON LLP

(54) Titre : DERIVES DE TRIAZOLE UTILES COMME INHIBITEURS D'AXL
(54) Title: TRIAZOLE DERIVATIVES USEFUL AS AXL INHIBITORS



or



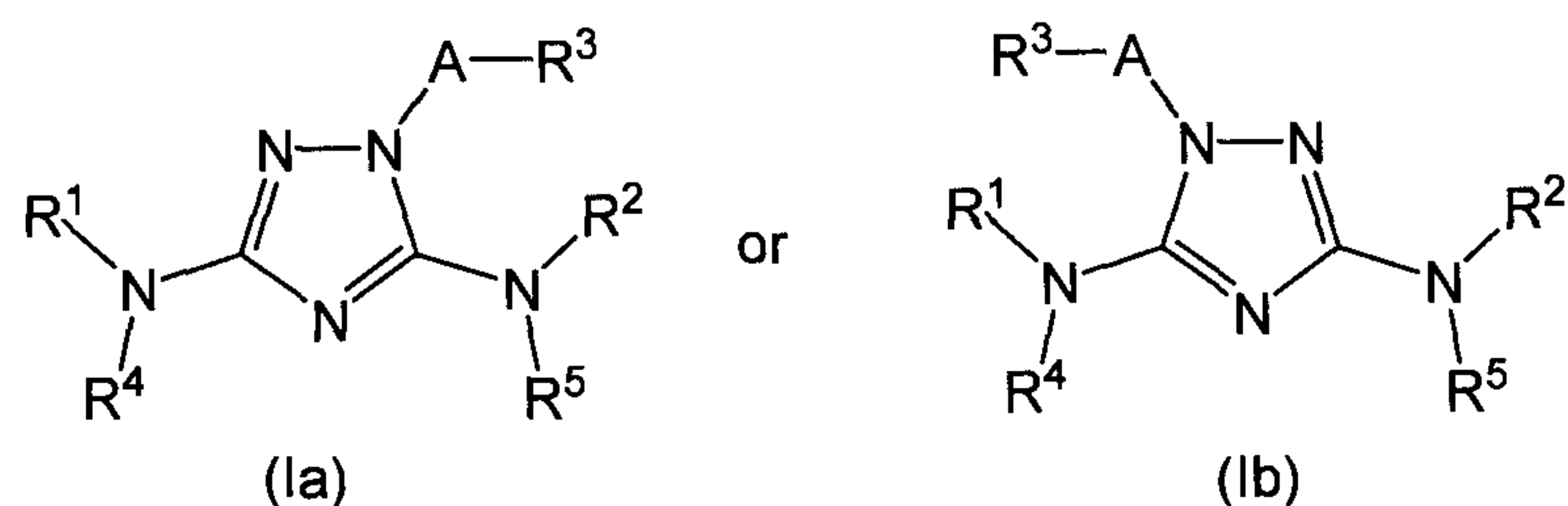
(57) Abrégé/Abstract:

Triazole derivatives and pharmaceutical compositions containing the derivatives are disclosed as being useful in inhibiting the activity of the receptor protein tyrosine kinase Axl. The triazole derivatives comprise a compound of formula (Ia) or (Ib): (see formula Ia) (see formula Ib) wherein each of A, R¹, R², R³, R⁴ and R⁵ are defined as set out herein. Methods of using the derivatives in treating diseases or conditions associated with Axl catalytic activity are also disclosed.



ABSTRACT

Triazole derivatives and pharmaceutical compositions containing the derivatives are disclosed as being useful in inhibiting the activity of the receptor protein tyrosine kinase Axl. The triazole derivatives comprise a compound of formula (Ia) or (Ib):



wherein each of A, R¹, R², R³, R⁴ and R⁵ are defined as set out herein. Methods of using the derivatives in treating diseases or conditions associated with Axl catalytic activity are also disclosed.

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NOTE: Pour les tomes additionels, veuillez contacter le Bureau Canadien des Brevets.

JUMBO APPLICATIONS / PATENTS

**THIS SECTION OF THE APPLICATION / PATENT CONTAINS MORE
THAN ONE VOLUME.**

THIS IS VOLUME __1__ OF __3__

NOTE: For additional volumes please contact the Canadian Patent Office.

TRIAZOLE DERIVATIVES USEFUL AS AXL INHIBITORS

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FIELD OF THE INVENTION

This invention is directed to triazole derivatives and pharmaceutical compositions thereof which are useful as inhibitors of the receptor protein tyrosine kinase known as Axl. This invention is also directed to methods of using the derivatives and compositions in treating diseases and conditions associated with Axl activity, particularly in treating diseases and conditions associated with angiogenesis and/or cell proliferation.

BACKGROUND OF THE INVENTION

All of the protein kinases that have been identified to date in the human genome share a highly conserved catalytic domain of around 300 aa. This domain folds into a bi-lobed structure in which reside ATP-binding and catalytic sites. The complexity of protein kinase regulation allows many potential mechanisms of inhibition including competition with activating ligands, modulation of positive and negative regulators, interference with protein dimerization, and allosteric or competitive inhibition at the substrate or ATP binding sites.

Axl (also known as UFO, ARK, and Tyro7; nucleotide accession numbers NM_021913 and NM_001699; protein accession numbers NP_068713 and NP_001690) is a receptor protein tyrosine kinase (RTK) that comprises a C-terminal extracellular ligand-binding domain and N-terminal cytoplasmic region containing the catalytic domain. The extracellular domain of Axl has a unique structure that juxtaposes immunoglobulin and fibronectin Type III repeats and is reminiscent of the structure of neural cell adhesion molecules. Axl and its two close relatives, Mer /Nyk and Sky (Tyro3 / Rse / Dtk), collectively known as the Tyro3 family of RTKs, all bind and are stimulated to varying degrees by the same ligand, Gas6 (growth arrest specific-6), a ~76kDa secreted protein with significant homology to the coagulation cascade regulator, Protein S. In addition to binding to ligands, the Axl extracellular domain has been shown to

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undergo homophilic interactions that mediate cell aggregation, suggesting that one important function of Axl may be to mediate cell-cell adhesion.

Axl is predominantly expressed in the vasculature in both endothelial cells (ECs) and vascular smooth muscle cells (VSMCs) and in cells of the myeloid lineage and is also detected in breast epithelial cells, chondrocytes, Sertoli cells and neurons. Several functions including protection from apoptosis induced by serum starvation, TNF- α or the viral protein E1A, as well as migration and cell differentiation have been ascribed to Axl signaling in cell culture. However, Axl^{-/-} mice exhibit no overt developmental phenotype and the physiological function of Axl *in vivo* is not clearly established in the literature.

Angiogenesis (the formation of new blood vessels) is limited to functions such as wound healing and the female reproductive cycle in healthy adults. This physiological process has been co-opted by tumors, thus securing an adequate blood supply that feeds tumor growth and facilitates metastasis. Deregulated angiogenesis is also a feature of many other diseases (for example, psoriasis, rheumatoid arthritis, endometriosis and blindness due to age-related macular degeneration (AMD), retinopathy of prematurity and diabetes) and often contributes to the progression or pathology of the condition.

The overexpression of Axl and/or its ligand has also been reported in a wide variety of solid tumor types including, but not limited to, breast, renal, endometrial, ovarian, thyroid, non-small cell lung carcinoma, and uveal melanoma as well as in myeloid leukemias. Furthermore, it possesses transforming activity in NIH3T3 and 32D cells. It has been demonstrated that loss of Axl expression in tumor cells blocks the growth of solid human neoplasms in an *in vivo* MDA-MB-231 breast carcinoma xenograft model. Taken together, these data suggest Axl signaling can independently regulate EC angiogenesis and tumor growth and thus represents a novel target class for tumor therapeutic development.

The expression of Axl and Gas6 proteins is upregulated in a variety of other disease states including endometriosis, vascular injury and kidney disease and Axl signaling is functionally implicated in the latter two indications. Axl - Gas6 signaling amplifies platelet responses and is implicated in thrombus formation. Axl may thus potentially represent a therapeutic target for a number of diverse pathological conditions including solid tumors, including, but not limited to, breast, renal, endometrial, ovarian, thyroid, non-small cell lung carcinoma and uveal melanoma; liquid tumors, including but not limited to, leukemias (particularly myeloid leukemias) and lymphomas; endometriosis, vascular disease / injury (including but not limited to restenosis,

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atherosclerosis and thrombosis), psoriasis; visual impairment due to macular degeneration; diabetic retinopathy and retinopathy of prematurity; kidney disease (including but not limited to glomerulonephritis, diabetic nephropathy and renal transplant rejection), rheumatoid arthritis; osteoarthritis and cataracts.

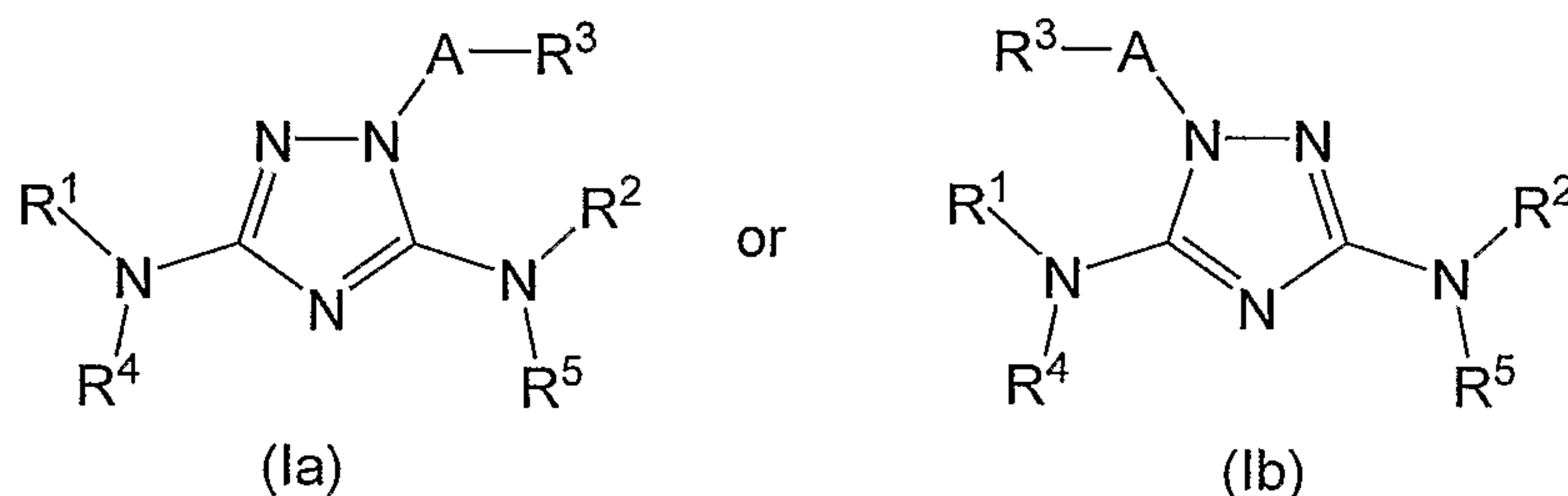
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SUMMARY OF THE INVENTION

This invention is directed to certain triazole derivatives which are useful as Axl inhibitors, methods of using such derivatives in treating diseases and conditions associated with Axl activity and pharmaceutical compositions comprising such derivatives.

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Accordingly, in one aspect this invention is directed to compounds of formula (Ia) or formula (Ib):



wherein, independently at each occurrence:

A is -C(O)-;

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or A is selected from the group consisting of -C(S)-, -C(NR¹¹)-, -C(O)O-, -C(S)O-, -C(O)S-, -C(S)S-, -C(S)S-, -C(NR¹¹)S-, -C(NR¹¹)O-, -C(S)N(R⁶), -C(O)N(R⁶)- and -C(NR¹¹)N(R⁶)-;

R¹ is one of the following:

20

a) aryl optionally substituted with one or more substituents selected from the group consisting of halo, haloalkyl, alkyl, optionally substituted heteroaryl, optionally substituted heterocyclyl, -R⁸-OR¹⁰, -R⁸-O-R⁹-OR¹⁰, -R⁸-O-R⁹-O-R⁹-OR¹⁰, -R⁸-O-R⁹-CN, -R⁸-O-R⁹-C(O)OR¹⁰, -R⁸-O-R⁹-C(O)N(R⁶)R⁷, -R⁸-O-R⁹-S(O)_pR⁶ (where p is 0, 1 or 2), -R⁸-O-R⁹-N(R⁶)R⁷, -R⁸-O-R⁹-C(NR¹¹)N(R¹¹)H, and -R⁸-N(R⁶)C(O)R¹⁰; or

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b) heteroaryl optionally substituted with one or more substituents selected from the group consisting of alkyl, halo, oxo, -R⁸-OR¹⁰, -R⁸-C(O)OR¹⁰, -R⁸-C(O)N(R⁶)R⁷ and -R⁸-N(R⁶)R⁷; or

c) heterocyclyl optionally substituted with one or more substituents selected from the group consisting of halo, haloalkyl, alkyl, oxo, -R⁸-OR¹⁰, -R⁸-C(O)OR¹⁰,

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$-R^8-C(O)N(R^6)R^7$, $-R^8-S(O)_pR^{10}$ (where p is 0, 1 or 2) and $-R^8-N(R^6)R^7$;

d) heterocyclalkyl optionally substituted with one or more substituents selected from the group consisting of halo, haloalkyl, alkyl, optionally substituted aryl, optionally substituted aralkyl, $-R^8-OR^{10}$, $-R^8-C(O)OR^{10}$, $-R^8-C(O)N(R^6)R^7$ and $-R^8-N(R^6)R^7$; or

e) cycloalkyl optionally substituted with one or more substituents selected from the group consisting of halo, haloalkyl, alkyl, oxo, $-R^8-OR^{10}$, $-R^8-C(O)OR^{10}$, $-R^8-C(O)N(R^6)R^7$, $-R^8-S(O)_pR^{10}$ (where p is 0, 1 or 2) and $-R^8-N(R^6)R^7$;

R^2 , R^4 and R^5 are each independently hydrogen, alkyl, aryl, aralkyl, $-C(O)R^{10}$ or $-C(O)N(R^6)R^7$;

R^3 is one of the following:

a) alkyl optionally substituted with one or more substituents selected from the group consisting of halo, cyano, nitro, oxo, thioxo, trimethylsilyl, $-OR^{14}$, $-OC(O)-R^{14}$, $-N(R^{14})_2$, $-C(O)R^{14}$, $-C(O)OR^{14}$, $-C(O)N(R^{14})_2$, $-N(R^{14})C(O)OR^{14}$, $-N(R^{14})C(O)R^{14}$, $-N(R^{14})S(O)_tR^{14}$ (where t is 1 or 2), $-S(O)_tOR^{14}$ (where t is 1 or 2), $-S(O)_pR^{14}$ (where p is 0, 1 or 2), and $-S(O)_tN(R^{14})_2$ (where t is 1 or 2) where each R^{14} is independently hydrogen, alkyl, haloalkyl, cycloalkyl, cycloalkylalkyl, aryl (optionally substituted with one or more halo groups), aralkyl, heterocycl, heterocyclalkyl, heteroaryl or heteroarylalkyl;

b) cycloalkyl optionally substituted with one or more substituents selected from the group consisting of $-R^8-OR^{10}$, alkyl, halo, haloalkyl, aryl, and aralkyl;

c) aryl optionally substituted with one or more substituents selected from the group consisting of alkyl, halo, haloalkyl, nitro, cycloalkyl, cycloalkylalkyl, optionally substituted aryl, optionally substituted heteroaryl, optionally substituted heterocycl, $-R^8-OR^{10}$, $-R^8-C(O)OR^{10}$, $-R^8-OC(O)R^{10}$, $-R^8-O-R^9-C(O)OR^{10}$, $-R^8-O-R^9-C(O)N(R^6)R^7$, $-S(O)_pR^6$ (where p is 0, 1 or 2), $-S(O)_tN(R^6)R^7$ (where t is 1 or 2), $-R^8-N(R^6)R^7$, $-R^8-N(R^6)C(O)R^{10}$, $-R^8-N(R^6)C(O)OR^{10}$ and $-R^8-CN$;

d) aralkyl, wherein:

(1) the alkyl part of the aralkyl radical is optionally substituted with one or more substituents selected from the group consisting of halo, cyano, nitro, oxo, thioxo, trimethylsilyl, $-OR^{14}$, $-OC(O)-R^{14}$, $-N(R^{14})_2$, $-C(O)R^{14}$, $-C(O)OR^{14}$, $-C(O)N(R^{14})_2$, $-N(R^{14})C(O)OR^{14}$, $-N(R^{14})C(O)R^{14}$, $-N(R^{14})S(O)_tR^{14}$ (where t is 1 or 2), $-S(O)_tOR^{14}$ (where t is 1 or 2), $-S(O)_pR^{14}$ (where p is 0, 1 or 2), and $-S(O)_tN(R^{14})_2$ (where t is 1 or 2) where each R^{14} is independently hydrogen, alkyl, haloalkyl, cycloalkyl, cycloalkylalkyl, aryl (optionally substituted with one or more

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halo groups), aralkyl, heterocyclyl, heterocyclalkyl, heteroaryl or heteroarylalkyl;
and

(2) the aryl part of the aralkyl radical is optionally substituted with one or more substituents selected from the group consisting of alkyl, alkenyl, alkynyl, halo, haloalkyl, haloalkenyl, haloalkynyl, cyano, nitro, aryl, aralkyl, aralkenyl, aralkynyl, cycloalkyl, cycloalkylalkyl, cycloalkylalkenyl, cycloalkylalkynyl, heterocyclyl, heterocyclalkyl, heterocyclalkenyl, heterocyclalkynyl, heteroaryl, heteroarylalkyl, heteroarylalkenyl, heteroarylalkynyl, $-R^{15}-OR^{14}$, $-R^{15}-OC(O)-R^{14}$, $-R^{15}-N(R^{14})_2$, $-R^{15}-C(O)R^{14}$, $-R^{15}-C(O)OR^{14}$, $-R^{15}-C(O)N(R^{14})_2$, $-R^{15}-O-R^{16}-C(O)N(R^{14})_2$, $-R^{15}-N(R^{14})C(O)OR^{14}$, $-R^{15}-N(R^{14})C(O)R^{14}$, $-R^{15}-N(R^{14})S(O)_tR^{14}$ (where t is 1 or 2), $-R^{15}-S(O)_tOR^{14}$ (where t is 1 or 2), $-R^{15}-S(O)_pR^{14}$ (where p is 0, 1 or 2), and $-R^{15}-S(O)_tN(R^{14})_2$ (where t is 1 or 2), where each R^{14} is independently hydrogen, alkyl, haloalkyl, cycloalkyl, cycloalkylalkyl, aryl, aralkyl, heterocyclyl, heterocyclalkyl, heteroaryl or heteroarylalkyl, each R^{15} is independently a direct bond or a straight or branched alkylene or alkenylene chain, and R^{16} is a straight or branched alkylene or alkenylene chain;

- e) optionally substituted aralkenyl;
- f) optionally substituted aralkynyl;
- g) optionally substituted heteroaryl;
- h) optionally substituted heteroarylalkenyl; or
- i) optionally substituted heteroarylalkynyl;

R^6 and R^7 are each independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, haloalkyl, haloalkenyl, haloalkynyl, hydroxyalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted aralkenyl, optionally substituted aralkynyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted cycloalkylalkenyl, optionally substituted cycloalkylalkynyl, optionally substituted heterocyclyl, optionally substituted heterocyclalkyl, optionally substituted heterocyclalkenyl, optionally substituted heterocyclalkynyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, optionally substituted heteroarylalkenyl, optionally substituted heteroarylalkynyl, $-R^9-OR^{10}$, $-R^9-CN$, $-R^9-NO_2$, $-R^9-N(R^{10})_2$, $-R^9-C(O)OR^{10}$ and $-R^9-C(O)N(R^{10})_2$;

optionally, R^6 and R^7 , together with the nitrogen to which they are attached, form an optionally substituted *N*-heteroaryl or an optionally substituted *N*-heterocyclyl;

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each R⁸ is independently selected from the group consisting of a direct bond, an optionally substituted straight or branched alkylene chain, an optionally substituted straight or branched alkenylene chain and an optionally substituted straight or branched alkynylene chain;

5 each R⁹ is independently selected from the group consisting of an optionally substituted straight or branched alkylene chain, an optionally substituted straight or branched alkenylene chain and an optionally substituted straight or branched alkynylene chain; and

10 each R¹⁰ is independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, haloalkyl, haloalkenyl, haloalkynyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted aralkenyl, optionally substituted aralkynyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted cycloalkylalkenyl, optionally substituted cycloalkylalkynyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, 15 optionally substituted heterocyclylalkenyl, optionally substituted heterocyclylalkynyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, optionally substituted heteroarylalkenyl, optionally substituted heteroarylalkynyl; and

each R¹¹ is hydrogen, alkyl, cyano, nitro or -OR¹⁰;

20 as an isolated stereoisomer or tautomer thereof or mixtures thereof, or a pharmaceutically acceptable salt, hydrate, solvate, N-oxide or prodrug thereof; provided that for compounds of formula (Ia):

- a) when A is -C(O)-, R², R⁴ and R⁵ are all hydrogen, and R³ is 3,4,5-trimethoxyphenyl, R¹ is not pyridin-3-yl;
- 25 b) when A is -C(O)-, R², R⁴ and R⁵ are all hydrogen, and R¹ is unsubstituted phenyl, R³ is not unsubstituted phenyl, unsubstituted 1,3-benzodioxol-5-yl, 2-(furan-2-yl)ethenyl, 4-chlorophenyl, unsubstituted naphthyl, 3-bromophenyl, 4-phenylphenyl, 4-trifluoromethylphenyl, 3-nitrophenyl, 3-(phenylcarbonyl)phenyl, 4-phenylbenzyl, 3-phenoxyphenyl, unsubstituted cyclohexyl, unsubstituted benzyl, 30 unsubstituted pyridin-3-yl, 3,5-dichlorophenyl, 4-acetylphenyl, 4-nitrophenyl, 4-fluorobenzyl, 2,6-difluorophenyl, 2-phenoxyphenyl, 3-methoxyphenyl, 2-methoxyphenyl, 4-methylphenyl or unsubstituted furan-2-yl;
- c) when A is -C(O)-, R², R⁴ and R⁵ are all hydrogen, and R³ is unsubstituted phenyl, R¹ is not 2-methyl-5-chlorophenyl, 3-chlorophenyl, or 3,4,5-trimethoxyphenyl;
- 35 d) when A is -C(O)-, R², R⁴ and R⁵ are all hydrogen, and R³ is 2,6-difluorophenyl, R¹

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is not 3-chlorophenyl, 4-(4-methylpiperidin-1-yl)phenyl, 4-(imidazol-1-yl)phenyl, 4-(1,2,4-triazol-1-yl)phenyl, 4-(1,2,4-triazol-4-yl)phenyl, 4-(imidazolidin-2-on-1-yl)phenyl, or 4-(1,1-dioxidoisothiazolidin-2-yl)phenyl;

e) when A is -C(O)-, R^2 , R^4 and R^5 are all hydrogen, and R^1 is 4-(4-methylpiperidin-1-yl)phenyl, R^3 is not 2,6-difluoro-3-methylphenyl, 3-methylthien-2-yl, 2,4-dimethylthien-2-yl, or 2-ethylthien-2-yl;

f) when A is -C(O)-, R^2 , R^4 and R^5 are all hydrogen, and R^1 is 4-(imidazol-1-yl)phenyl, R^3 is not 5-ethylthien-2-yl, 3-methylthien-2-yl, 2,5-dimethylthien-2-yl, or 2,6-difluoro-3-methylphenyl;

g) when A is -C(O)-, R^2 , R^4 and R^5 are all hydrogen, and R^1 is 3-chlorophenyl, R^3 is not 2-(phenylcarbonyl)ethyl, 3-phenylpropyl, 2-phenylethyl, naphth-2-ylmethyl or 2-(phenylcarbonyl)propyl;

h) when A is -C(O)-, R^2 , R^4 and R^5 are all hydrogen, and R^1 is 4-(1,2,4-triazol-1-yl)phenyl, R^3 is not 2,6-difluoro-3-methylphenyl, 3-methylthien-2-yl, 3,5-dimethylthien-2-yl, or 5-ethylthien-2-yl;

i) when A is -C(O)-, R^2 , R^4 and R^5 are all hydrogen, and R^1 is 4-(1,2,4-triazol-4-yl)phenyl, R^3 is not 3-methylthien-2-yl or 2,6-difluoro-3-methylphenyl;

j) when A is -C(O)-, R^2 , R^4 and R^5 are all hydrogen, and R^1 is 4-(imidazolidin-2-on-1-yl)phenyl, R^3 is not 3-methylthien-2-yl or 2,6-difluoro-3-methylphenyl;

k) when A is -C(O)-, R^2 , R^4 and R^5 are all hydrogen, and R^1 is 4-(1,1-dioxidoisothiazolidin-2-yl)phenyl, R^3 is not 3-methylthien-2-yl;

l) when A is -C(O)-, R^2 , R^4 and R^5 are all hydrogen, and R^3 is 2-chlorophenyl, R^1 is not 6-methoxypyridin-3-yl or 4-methoxyphenyl;

m) when A is -C(O)-, R^2 , R^4 and R^5 are all hydrogen, and R^3 is unsubstituted pyridin-3-yl, R^1 is not 6-methoxypyridin-3-yl;

n) when A is -C(O)-, R^2 , R^4 and R^5 are all hydrogen, and R^3 is 4-nitrophenyl, R^1 is not 4-methyl-2,4-dihydrothiazol-2-yl;

o) when A is -C(O)-, R^2 , R^4 and R^5 are all hydrogen, and R^1 is 4-methoxyphenyl, R^3 is not thien-2-yl or furan-2-yl;

p) when A is -C(O)N(H)-, R^2 , R^4 and R^5 are all hydrogen, and R^1 is unsubstituted phenyl, R^3 is not unsubstituted phenyl, unsubstituted cyclohexyl, 4-phenylphenyl, 4-phenoxyphenyl, 2-methyl-4-bromophenyl, unsubstituted naphth-1-yl, 3-nitrophenyl, or 3-methoxyphenyl;

q) when A is -C(O)N(H)-, R^2 , R^4 and R^5 are all hydrogen, and R^1 is 4-chlorophenyl, R^3 is not 4-methoxyphenyl;

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- r) when A is -C(O)N(H)-, R², R⁴ and R⁵ are all hydrogen, and R³ is unsubstituted phenyl, R¹ is not unsubstituted pyridin-3-yl or 3,4,5-trimethoxyphenyl; or
- s) when A is -C(O)N(H)-, R², R⁴ and R⁵ are all hydrogen, and R¹ is unsubstituted pyridin-3-yl, R³ is not unsubstituted benzyl, 2-chlorophenyl, 3-chlorophenyl, or 4-methylphenyl;

and provided that for compounds of formula (Ib):

- t) when A is -C(O)-, R², R⁴ and R⁵ are all hydrogen, and R¹ is unsubstituted phenyl, R³ is not 2-(furan-2-yl)ethenyl, unsubstituted phenyl, or 2,6-difluorophenyl;
- u) when A is -C(O)-, R², R⁴ and R⁵ are all hydrogen, and R¹ is 3-chlorophenyl, R³ is not unsubstituted phenyl or 2,6-difluorophenyl;
- v) when A is -C(O)N(H)-, R², R⁴ and R⁵ are all hydrogen, R¹ is unsubstituted phenyl, R³ is not 3,4,5-trimethoxyphenyl; or
- w) when A is -C(O)N(H)-, R², R⁴ and R⁵ are all hydrogen, R¹ is 4-methylphenyl, R³ is not pyridin-3-yl.

In another aspect, this invention provides assays to determine a compound of the invention effectiveness in inhibiting Axl activity in a cell-based assay.

In another aspect, the following compounds, as identified by their unique Chemical Abstracts Service (CAS) registry numbers, are not meant to be included within the scope of the invention: 110984-61-7; 324074-12-6; 324074-13-7; 324074-14-8;

324074-15-9; 324074-16-0; 324074-17-1; 324074-18-2; 324074-19-3; 324074-20-6; 324074-21-7; 324074-22-8; 324074-23-9; 324074-24-0; 324074-25-1; 324074-28-4; 324074-29-5; 324074-30-8; 324074-31-9; 324074-32-0; 324074-33-1; 324074-34-2; 324074-35-3; 324074-36-4; 324074-38-6; 324074-39-7; 324074-41-1; 324074-42-2; 324074-43-3; 324074-44-4; 324074-45-5; 324074-46-6; 324074-47-7; 324074-48-8; 324074-50-2; 324074-51-3; 324074-52-4; 443798-64-9; 443798-65-0; 443798-66-1; 443798-67-2; 443798-68-3; 443798-69-4; 443798-70-7; 443798-71-8; 443798-72-9; 443798-73-0; 443798-74-1; 443798-87-6; 443798-88-7; 443798-89-8; 443798-90-1; 443798-91-2; 443798-92-3; 443798-93-4; 443798-96-7; 443798-95-6; 443798-94-5; 443798-97-8; 443798-98-9; 443798-99-0; 443799-10-8; 443799-12-0; 443799-14-2; 443799-16-4; 443799-18-6; 503546-63-2; 503546-65-4; 700811-45-6; 700812-30-2; 700812-68-6; 700812-69-7; 863030-86-8; 863030-85-7; 863030-84-6; 863030-77-7; 863030-76-6; 863030-74-4; 863030-87-9; 863030-83-5; 863030-81-3; and 863030-79-9.

In another aspect, the scope of the invention is not meant to include any compounds disclosed or claimed in the following publications, patents and patent applications:

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U.S. Patent No. 3,813,400;

PCT Published Patent Application No. WO 01/09106;

PCT Published Patent Application No. WO 02/057240;

PCT Published Patent Application No. WO 03/027275;

5 PCT Published Patent Application No. WO 03/093344

PCT Published Patent Application No. WO 2004/017997;

PCT Published Patent Application No. WO 2004/046120;

PCT Published Patent Application No. WO 2005/077922;

10 Katrizky, A.R. *et al.*, "Synthesis of 5-(2-arylazanyl)-1,2,4-triazoles and 2-amino-5-aryl-1,3,4-oxadiazoles", *ARKIVOC* (2002), vi, pp. 82-90; and

Reiter, J. *et al.*, "On triazoles. VI. The acylation of 5-amino-1,2,4-triazoles", *Journal of Heterocyclic Chemistry* (1987), 24(1), pp. 127-42.

DETAILED DESCRIPTION OF THE INVENTION

Definitions

15 As used in the specification and appended claims, unless specified to the contrary, the following terms have the meaning indicated:

"Amino" refers to the $-NH_2$ radical.

"Cyano" refers to the $-CN$ radical.

"Nitro" refers to the $-NO_2$ radical.

20 "Oxa" refers to the $-O-$ radical.

"Oxo" refers to the $=O$ radical.

"Thioxo" refers to the $=S$ radical.

"Alkyl" refers to a straight or branched hydrocarbon chain radical consisting solely of carbon and hydrogen atoms, containing no unsaturation, having from one to twelve carbon atoms, preferably one to eight carbon atoms or one to six carbon atoms, and which is attached to the rest of the molecule by a single bond, for example, methyl, ethyl, *n*-propyl, 1-methylethyl (*iso*-propyl), *n*-butyl, *n*-pentyl, 1,1-dimethylethyl (*t*-butyl), 3-methylhexyl, 2-methylhexyl, and the like. Unless stated otherwise specifically in the specification, an alkyl group may be optionally substituted by one or more of the

25 following substituents: halo, cyano, nitro, oxo, thioxo, trimethylsilyl, $-OR^{14}$, $-OC(O)-R^{14}$, $-N(R^{14})_2$, $-C(O)R^{14}$, $-C(O)OR^{14}$, $-C(O)N(R^{14})_2$, $-N(R^{14})C(O)OR^{14}$, $-N(R^{14})C(O)R^{14}$, $-N(R^{14})S(O)_tR^{14}$ (where *t* is 1 or 2), $-S(O)_tOR^{14}$ (where *t* is 1 or 2), $-S(O)_pR^{14}$ (where *p* is 0, 1 or 2), and $-S(O)_tN(R^{14})_2$ (where *t* is 1 or 2) where each R^{14} is

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independently hydrogen, alkyl, haloalkyl, cycloalkyl, cycloalkylalkyl, aryl (optionally substituted with one or more halo groups), aralkyl, heterocyclyl, heterocylylalkyl, heteroaryl or heteroarylalkyl, and where each of the above substituents is unsubstituted unless otherwise indicated.

5 "Alkenyl" refers to a straight or branched hydrocarbon chain radical group consisting solely of carbon and hydrogen atoms, containing at least one double bond, having from two to twelve carbon atoms, preferably one to eight carbon atoms and which is attached to the rest of the molecule by a single bond, for example, ethenyl, prop-1-enyl, but-1-enyl, pent-1-enyl, penta-1,4-dienyl, and the like. Unless stated
10 otherwise specifically in the specification, an alkenyl group may be optionally substituted by one or more of the following substituents: halo, cyano, nitro, oxo, thioxo, trimethylsilanyl, $-OR^{14}$, $-OC(O)-R^{14}$, $-N(R^{14})_2$, $-C(O)R^{14}$, $-C(O)OR^{14}$, $-C(O)N(R^{14})_2$, $-N(R^{14})C(O)OR^{14}$, $-N(R^{14})C(O)R^{14}$, $-N(R^{14})S(O)_tR^{14}$ (where t is 1 or 2), $-S(O)_tOR^{14}$ (where t is 1 or 2), $-S(O)_pR^{14}$ (where p is 0, 1 or 2), and $-S(O)_tN(R^{14})_2$ (where t is 1 or 2) where
15 each R^{14} is independently hydrogen, alkyl, haloalkyl, cycloalkyl, cycloalkylalkyl, aryl (optionally substituted with one or more halo groups), aralkyl, heterocyclyl, heterocylylalkyl, heteroaryl or heteroarylalkyl, and where each of the above substituents is unsubstituted unless otherwise indicated.

"Alkynyl" refers to a straight or branched hydrocarbon chain radical group
20 consisting solely of carbon and hydrogen atoms, containing at least one triple bond, optionally containing at least one double bond, having from two to twelve carbon atoms, preferably one to eight carbon atoms and which is attached to the rest of the molecule by a single bond, for example, ethynyl, propynyl, butynyl, pentynyl, hexynyl, and the like. Unless stated otherwise specifically in the specification, an alkynyl group may be
25 optionally substituted by one or more of the following substituents: halo, cyano, nitro, oxo, thioxo, trimethylsilanyl, $-OR^{14}$, $-OC(O)-R^{14}$, $-N(R^{14})_2$, $-C(O)R^{14}$, $-C(O)OR^{14}$, $-C(O)N(R^{14})_2$, $-N(R^{14})C(O)OR^{14}$, $-N(R^{14})C(O)R^{14}$, $-N(R^{14})S(O)_tR^{14}$ (where t is 1 or 2), $-S(O)_tOR^{14}$ (where t is 1 or 2), $-S(O)_pR^{14}$ (where p is 0, 1 or 2), and $-S(O)_tN(R^{14})_2$ (where t is 1 or 2) where each R^{14} is independently hydrogen, alkyl, haloalkyl, cycloalkyl,
30 cycloalkylalkyl, aryl (optionally substituted with one or more halo groups), aralkyl, heterocyclyl, heterocylylalkyl, heteroaryl or heteroarylalkyl, and where each of the above substituents is unsubstituted unless otherwise indicated.

"Alkylene" or "alkylene chain" refers to a straight or branched divalent hydrocarbon chain linking the rest of the molecule to a radical group, consisting solely of
35 carbon and hydrogen, containing no unsaturation and having from one to twelve carbon

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atoms, for example, methylene, ethylene, propylene, *n*-butylene, and the like. The alkylene chain is attached to the rest of the molecule through a single bond and to the radical group through a single bond. The points of attachment of the alkylene chain to the rest of the molecule and to the radical group can be through one carbon in the

5 alkylene chain or through any two carbons within the chain. Unless stated otherwise specifically in the specification, an alkylene chain may be optionally substituted by one or more of the following substituents: halo, cyano, nitro, aryl, cycloalkyl, heterocyclyl, heteroaryl, oxo, thioxo, trimethylsilyl, $-OR^{14}$, $-OC(O)-R^{14}$, $-N(R^{14})_2$, $-C(O)R^{14}$, $-C(O)OR^{14}$, $-C(O)N(R^{14})_2$, $-N(R^{14})C(O)OR^{14}$, $-N(R^{14})C(O)R^{14}$, $-N(R^{14})S(O)_tR^{14}$ (where *t* is

10 1 or 2), $-S(O)_tOR^{14}$ (where *t* is 1 or 2), $-S(O)_pR^{14}$ (where *p* is 0, 1 or 2), and $-S(O)_tN(R^{14})_2$ (where *t* is 1 or 2) where each R^{14} is independently hydrogen, alkyl, haloalkyl, cycloalkyl, cycloalkylalkyl, aryl (optionally substituted with one or more halo groups), aralkyl, heterocyclyl, heterocylalkyl, heteroaryl or heteroarylalkyl, and where each of the above substituents is unsubstituted unless otherwise indicated.

15 "Alkenylene" or "alkenylene chain" refers to a straight or branched divalent hydrocarbon chain linking the rest of the molecule to a radical group, consisting solely of carbon and hydrogen, containing at least one double bond and having from two to twelve carbon atoms, for example, ethenylene, propenylene, *n*-butenylene, and the like. The alkenylene chain is attached to the rest of the molecule through a double bond or a

20 single bond and to the radical group through a double bond or a single bond. The points of attachment of the alkenylene chain to the rest of the molecule and to the radical group can be through one carbon or any two carbons within the chain. Unless stated otherwise specifically in the specification, an alkenylene chain may be optionally substituted by one or more of the following substituents: halo, cyano, nitro, aryl, cycloalkyl, heterocyclyl,

25 heteroaryl, oxo, thioxo, trimethylsilyl, $-OR^{14}$, $-OC(O)-R^{14}$, $-N(R^{14})_2$, $-C(O)R^{14}$, $-C(O)OR^{14}$, $-C(O)N(R^{14})_2$, $-N(R^{14})C(O)OR^{14}$, $-N(R^{14})C(O)R^{14}$, $-N(R^{14})S(O)_tR^{14}$ (where *t* is 1 or 2), $-S(O)_tOR^{14}$ (where *t* is 1 or 2), $-S(O)_pR^{14}$ (where *p* is 0, 1 or 2), and $-S(O)_tN(R^{14})_2$ (where *t* is 1 or 2) where each R^{14} is independently hydrogen, alkyl, haloalkyl, cycloalkyl, cycloalkylalkyl, aryl (optionally substituted with one or more halo groups), aralkyl,

30 heterocyclyl, heterocylalkyl, heteroaryl or heteroarylalkyl, and where each of the above substituents is unsubstituted unless otherwise indicated.

"Alkynylene" or "alkynylene chain" refers to a straight or branched divalent hydrocarbon chain linking the rest of the molecule to a radical group, consisting solely of carbon and hydrogen, containing at least one triple bond and having from two to twelve

35 carbon atoms, for example, propynylene, *n*-butynylene, and the like. The alkynylene

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chain is attached to the rest of the molecule through a single bond and to the radical group through a double bond or a single bond. The points of attachment of the alkynylene chain to the rest of the molecule and to the radical group can be through one carbon or any two carbons within the chain. Unless stated otherwise specifically in the specification, an alkynylene chain may be optionally substituted by one or more of the following substituents: alkyl, alkenyl, halo, haloalkenyl, cyano, nitro, aryl, cycloalkyl, heterocyclyl, heteroaryl, oxo, thioxo, trimethylsilyl, $-OR^{14}$, $-OC(O)-R^{14}$, $-N(R^{14})_2$, $-C(O)R^{14}$, $-C(O)OR^{14}$, $-C(O)N(R^{14})_2$, $-N(R^{14})C(O)OR^{14}$, $-N(R^{14})C(O)R^{14}$, $-N(R^{14})S(O)_tR^{14}$ (where t is 1 or 2), $-S(O)_tOR^{14}$ (where t is 1 or 2), $-S(O)_pR^{14}$ (where p is 0, 1 or 2), and $-S(O)_tN(R^{14})_2$ (where t is 1 or 2) where each R^{14} is independently hydrogen, alkyl, haloalkyl, cycloalkyl, cycloalkylalkyl, aryl (optionally substituted with one or more halo groups), aralkyl, heterocyclyl, heterocyclalkyl, heteroaryl or heteroarylalkyl, and where each of the above substituents is unsubstituted unless otherwise indicated.

"Alkoxy" refers to a radical of the formula $-OR_a$ where R_a is an alkyl radical as defined above containing one to twelve carbon atoms. The alkyl part of the alkoxy radical may be optionally substituted as defined above for an alkyl radical.

"Alkoxyalkyl" refers to a radical of the formula $-R_a-O-R_a$ where each R_a is independently an alkyl radical as defined above. The oxygen atom may be bonded to any carbon in either alkyl radical. Each alkyl part of the alkoxyalkyl radical may be optionally substituted as defined above for an alkyl group.

"Aryl" refers to aromatic monocyclic or polycyclic hydrocarbon ring system consisting only of hydrogen and carbon and containing from 6 to 19 carbon atoms, where the ring system may be partially or fully saturated. Aryl groups include, but are not limited to, groups such as fluorenyl, phenyl and naphthyl. Unless stated otherwise specifically in the specification, the term "aryl" or the prefix "ar-" (such as in "aralkyl") is meant to include aryl radicals optionally substituted by one or more substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, halo, haloalkyl, haloalkenyl, haloalkynyl, cyano, nitro, optionally substituted aryl, optionally substituted aralkyl, optionally substituted aralkenyl, optionally substituted aralkynyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted cycloalkylalkenyl, optionally substituted cycloalkylalkynyl, optionally substituted heterocyclyl, optionally substituted heterocyclalkyl, optionally substituted heterocyclalkenyl, optionally substituted heterocyclalkynyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, optionally substituted heteroarylalkenyl, optionally substituted heteroarylalkynyl, $-R^{15}-OR^{14}$, $-R^{15}-OC(O)-R^{14}$, $-R^{15}-N(R^{14})_2$,

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$-R^{15}-C(O)R^{14}$, $-R^{15}-C(O)OR^{14}$, $-R^{15}-C(O)N(R^{14})_2$, $-R^{15}-O-R^{16}-C(O)N(R^{14})_2$,
 $-R^{15}-N(R^{14})C(O)OR^{14}$, $-R^{15}-N(R^{14})C(O)R^{14}$, $-R^{15}-N(R^{14})S(O)_tR^{14}$ (where t is 1 or 2),
 $-R^{15}-S(O)_tOR^{14}$ (where t is 1 or 2), $-R^{15}-S(O)_pR^{14}$ (where p is 0, 1 or 2), and
 $-R^{15}-S(O)_tN(R^{14})_2$ (where t is 1 or 2), where each R^{14} is independently hydrogen, alkyl,
 5 haloalkyl, cycloalkyl, cycloalkylalkyl, aryl, aralkyl, heterocyclyl, heterocyclalkyl,
 heteroaryl or heteroarylalkyl, each R^{15} is independently a direct bond or a straight or
 branched alkylene or alkenylene chain, and R^{16} is a straight or branched alkylene or
 alkenylene chain, and where each of the above substituents is unsubstituted unless
 otherwise indicated.

10 "Aralkyl" refers to a radical of the formula $-R_aR_b$ where R_a is an alkyl radical as
 defined above and R_b is one or more aryl radicals as defined above, for example, benzyl,
 diphenylmethyl and the like. The alkyl part of the aralkyl radical may be optionally
 substituted as described above for an alkyl group. The aryl part of the aralkyl radical
 may be optionally substituted as described above for an aryl group.

15 "Aralkenyl" refers to a radical of the formula $-R_cR_b$ where R_c is an alkenyl radical
 as defined above and R_b is one or more aryl radicals as defined above. The aryl part of
 the aralkenyl radical may be optionally substituted as described above for an aryl group.
 The alkenyl part of the aralkenyl radical may be optionally substituted as defined above
 for an alkenyl group.

20 "Aralkynyl" refers to a radical of the formula $-R_dR_b$ where R_d is an alkynyl radical
 as defined above and R_b is one or more aryl radicals as defined above. The aryl part of
 the aralkynyl radical may be optionally substituted as described above for an aryl group.
 The alkynyl part of the aralkynyl radical may be optionally substituted as defined above
 for an alkynyl group.

25 "Aryloxy" refers to a radical of the formula $-OR_b$ where R_b is an aryl group as
 defined above. The aryl part of the aryloxy radical may be optionally substituted as
 defined above.

"Aralkyloxy" refers to a radical of the formula $-OR_b$ where R_b is an aralkyl group
 as defined above. The aralkyl part of the aralkyloxy radical may be optionally substituted
 30 as defined above.

"Cycloalkyl" refers to a stable non-aromatic monocyclic or polycyclic hydrocarbon
 radical consisting solely of carbon and hydrogen atoms, which may include fused or
 bridged ring systems, having from three to fifteen carbon atoms, preferably having from
 three to ten carbon atoms, and which is saturated or unsaturated and attached to the
 35 rest of the molecule by a single bond. Monocyclic radicals include, for example,

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cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, and cyclooctyl. Polycyclic radicals include, for example, adamantane, norbornane, norbornene, decalanyl, 7,7-dimethyl-bicyclo[2.2.1]heptanyl, and the like. Unless otherwise stated specifically in the specification, the term "cycloalkyl" is meant to include cycloalkyl radicals which are

5 optionally substituted by one or more substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, halo, haloalkyl, haloalkenyl, haloalkynyl, oxo, thioxo, cyano, nitro, optionally substituted aryl, optionally substituted aralkyl, optionally substituted aralkenyl, optionally substituted aralkynyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted cycloalkylalkenyl, optionally substituted cycloalkylalkynyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heterocyclylalkenyl, optionally substituted heterocyclylalkynyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, optionally substituted heteroarylalkenyl, optionally substituted heteroarylalkynyl, $-R^{15}-OR^{14}$, $-R^{15}-OC(O)-R^{14}$, $-R^{15}-N(R^{14})_2$, $-R^{15}-C(O)R^{14}$, $-R^{15}-C(O)OR^{14}$, $-R^{15}-C(O)N(R^{14})_2$, $-R^{15}-N(R^{14})C(O)OR^{14}$, $-R^{15}-N(R^{14})C(O)R^{14}$, $-R^{15}-N(R^{14})S(O)_tR^{14}$ (where

15 t is 1 or 2), $-R^{15}-S(O)_tOR^{14}$ (where t is 1 or 2), $-R^{15}-S(O)_pR^{14}$ (where p is 0, 1 or 2), and $-R^{15}-S(O)_tN(R^{14})_2$ (where t is 1 or 2), where each R^{14} is independently hydrogen, alkyl, haloalkyl, cycloalkyl, cycloalkylalkyl, aryl, aralkyl, heterocyclyl, heterocyclylalkyl, heteroaryl or heteroarylalkyl, and each R^{15} is independently a direct bond or a straight or

20 branched alkylene or alkenylene chain, and where each of the above substituents is unsubstituted unless otherwise indicated.

"Cycloalkylalkyl" refers to a radical of the formula $-R_aR_e$ where R_a is an alkyl radical as defined above and R_e is a cycloalkyl radical as defined above. The alkyl radical and the cycloalkyl radical may be optionally substituted as defined above.

25 "Cycloalkylalkenyl" refers to a radical of the formula $-R_cR_e$ where R_c is an alkenyl radical as defined above and R_e is a cycloalkyl radical as defined above. The alkenyl radical and the cycloalkyl radical may be optionally substituted as defined above.

"Cycloalkylalkynyl" refers to a radical of the formula $-R_dR_e$ where R_d is an alkynyl radical as defined above and R_e is a cycloalkyl radical as defined above. The alkynyl

30 radical and the cycloalkyl radical may be optionally substituted as defined above.

"Halo" refers to bromo, chloro, fluoro or iodo.

"Haloalkyl" refers to an alkyl radical, as defined above, that is substituted by one or more halo radicals, as defined above, for example, trifluoromethyl, difluoromethyl, trichloromethyl, 2,2,2-trifluoroethyl, 1-fluoromethyl-2-fluoroethyl, 3-bromo-2-fluoropropyl,

35 1-bromomethyl-2-bromoethyl, and the like. The alkyl part of the haloalkyl radical may be

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optionally substituted as defined above for an alkyl group.

"Haloalkenyl" refers to an alkenyl radical, as defined above, that is substituted by one or more halo radicals, as defined above. The alkenyl part of the haloalkyl radical may be optionally substituted as defined above for an alkenyl group.

5 "Haloalkynyl" refers to an alkynyl radical, as defined above, that is substituted by one or more halo radicals, as defined above. The alkynyl part of the haloalkyl radical may be optionally substituted as defined above for an alkynyl group.

"Heterocyclyl" refers to a stable 3- to 18-membered non-aromatic ring radical which consists of one to twelve carbon atoms and from one to six heteroatoms selected from the group consisting of nitrogen, oxygen and sulfur. Unless stated otherwise specifically in the specification, the heterocyclyl radical may be a monocyclic, bicyclic, tricyclic or tetracyclic ring system, which may include fused or bridged ring systems; and the nitrogen, carbon or sulfur atoms in the heterocyclyl radical may be optionally oxidized; the nitrogen atom may be optionally quaternized; and the heterocyclyl radical 15 may be partially or fully saturated. Examples of such heterocyclyl radicals include, but are not limited to, dioxolanyl, thienyl[1,3]dithianyl, decahydroisoquinolyl, imidazolyl, imidazolidinyl, isothiazolidinyl, isoxazolidinyl, morpholyl, octahydroindolyl, octahydroisoindolyl, 2-oxopiperazyl, 2-oxopiperidinyl, 2-oxopyrrolidinyl, oxazolidinyl, piperidinyl, piperazyl, 4-piperidonyl, pyrrolidinyl, pyrazolidinyl, thiazolidinyl, 20 tetrahydrofuryl, trithianyl, tetrahydropyranyl, thiomorpholyl, thiamorpholyl, 1-oxo-thiomorpholyl, and 1,1-dioxo-thiomorpholyl. Unless stated otherwise specifically in the specification, the term "heterocyclyl" is meant to include heterocyclyl radicals as defined above which are optionally substituted by one or more substituents selected from the group consisting of alkyl, alkenyl, alkynyl, halo, haloalkyl, haloalkenyl, 25 haloalkynyl, oxo, thioxo, cyano, nitro, optionally substituted aryl, optionally substituted aralkyl, optionally substituted aralkenyl, optionally substituted aralkynyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted cycloalkylalkenyl, optionally substituted cycloalkylalkynyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted 30 heterocyclylalkenyl, optionally substituted heterocyclylalkynyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, optionally substituted heteroarylalkenyl, optionally substituted heteroarylalkynyl, $-R^{15}-OR^{14}$, $-R^{15}-OC(O)-R^{14}$, $-R^{15}-N(R^{14})_2$, $-R^{15}-C(O)R^{14}$, $-R^{15}-C(O)OR^{14}$, $-R^{15}-C(O)N(R^{14})_2$, $-R^{15}-N(R^{14})C(O)OR^{14}$, $-R^{15}-N(R^{14})C(O)R^{14}$, $-R^{15}-N(R^{14})S(O)_tR^{14}$ (where t is 1 or 2), $-R^{15}-S(O)_tOR^{14}$ (where t is 1 or 2), $-R^{15}-S(O)_pR^{14}$ (where p is 0, 1 or 2), and $-R^{15}-S(O)_tN(R^{14})_2$ (where t is 1 or 2), 35

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where each R^{14} is independently hydrogen, alkyl, haloalkyl, cycloalkyl, cycloalkylalkyl, aryl, aralkyl, heterocyclyl, heterocyclylalkyl, heteroaryl or heteroarylalkyl, and each R^{15} is independently a direct bond or a straight or branched alkylene or alkenylene chain, and where each of the above substituents is unsubstituted unless otherwise indicated.

5 "N-heterocyclyl" refers to a heterocyclyl radical as defined above containing at least one nitrogen and where the point of attachment of the heterocyclyl radical to the rest of the molecule is through a nitrogen atom in the heterocyclyl radical. An N-heterocyclyl radical may be optionally substituted as described above for heterocyclyl radicals.

10 "Heterocyclylalkyl" refers to a radical of the formula $-R_aR_f$ where R_a is an alkyl radical as defined above and R_f is a heterocyclyl radical as defined above, and if the heterocyclyl is a nitrogen-containing heterocyclyl, the heterocyclyl may be attached to the alkyl radical at the nitrogen atom. The alkyl part of the heterocyclylalkyl radical may be optionally substituted as defined above for an alkyl group. The heterocyclyl part of
15 the heterocyclylalkyl radical may be optionally substituted as defined above for a heterocyclyl group.

"Heterocyclylalkenyl" refers to a radical of the formula $-R_cR_f$ where R_c is an alkenyl radical as defined above and R_f is a heterocyclyl radical as defined above, and if the heterocyclyl is a nitrogen-containing heterocyclyl, the heterocyclyl may be attached
20 to the alkenyl radical at the nitrogen atom. The alkenyl part of the heterocyclylalkenyl radical may be optionally substituted as defined above for an alkenyl group. The heterocyclyl part of the heterocyclylalkenyl radical may be optionally substituted as defined above for a heterocyclyl group.

"Heterocyclylalkynyl" refers to a radical of the formula $-R_dR_f$ where R_d is an
25 alkynyl radical as defined above and R_f is a heterocyclyl radical as defined above, and if the heterocyclyl is a nitrogen-containing heterocyclyl, the heterocyclyl may be attached to the alkynyl radical at the nitrogen atom. The alkynyl part of the heterocyclylalkynyl radical may be optionally substituted as defined above for an alkynyl group. The heterocyclyl part of the heterocyclylalkynyl radical may be optionally substituted as
30 defined above for a heterocyclyl group.

"Heteroaryl" refers to a 3- to 18-membered partially or fully aromatic ring radical which consists of one to thirteen carbon atoms and from one to six heteroatoms selected from the group consisting of nitrogen, oxygen and sulfur. For purposes of this invention, the heteroaryl radical may be a monocyclic, bicyclic, tricyclic or tetracyclic ring system,
35 which may include fused or bridged ring systems; and the nitrogen, carbon or sulfur

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atoms in the heteroaryl radical may be optionally oxidized; the nitrogen atom may be optionally quaternized. Examples include, but are not limited to, azepinyl, acridinyl, benzimidazolyl, benzthiazolyl, benzindolyl, 1,3-benzodioxolyl, benzofuranyl, benzooxazolyl, benzothiazolyl, benzothiadiazolyl, benzo[*b*][1,4]dioxepinyl, benzo[*b*][1,4]oxazinyl, 1,4-benzodioxanyl, benzonaphthofuranyl, benzoxazolyl, benzodioxolyl, benzodioxinyl, benzopyranyl, benzopyranonyl, benzofuranyl, benzofuranonyl, benzothienyl (benzothiophenyl), benzotriazolyl, benzo[4,6]imidazo[1,2-*a*]pyridinyl, carbazolyl, cinnolinyl, dibenzofuranyl, dibenzothiophenyl, furanyl, furanonyl, isothiazolyl, imidazolyl, indazolyl, indolyl, indazolyl, isoindolyl, indolinyl, isoindolinyl, isoquinolyl, indoliziny, isoxazolyl, naphthyl, naphthyridinyl, oxadiazolyl, 2-oxoazepinyl, oxazolyl, oxiranyl, 1-phenyl-1*H*-pyrrolyl, phenazinyl, phenothiazinyl, phenoxazinyl, phthalazinyl, pteridinyl, purinyl, pyrrolyl, pyrazolyl, pyridinyl, pyrazinyl, pyrimidinyl, pyridazinyl, pyrrolyl, quinazolinyl, quinoxalinyl, quinolinyl, quinuclidinyl, isoquinolinyl, tetrahydroquinolinyl, thiazolyl, thiadiazolyl, triazolyl, tetrazolyl, triazinyl, and thiophenyl (i.e. thienyl). Unless stated otherwise specifically in the specification, the term "heteroaryl" is meant to include heteroaryl radicals as defined above which are optionally substituted by one or more substituents selected from the group consisting of alkyl, alkenyl, alkynyl, halo, haloalkyl, haloalkenyl, haloalkynyl, oxo, thioxo, cyano, nitro, optionally substituted aryl, optionally substituted aralkyl, optionally substituted aralkenyl, optionally substituted aralkynyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted cycloalkylalkenyl, optionally substituted cycloalkylalkynyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heterocyclylalkenyl, optionally substituted heterocyclylalkynyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, optionally substituted heteroarylalkenyl, optionally substituted heteroarylalkynyl, $-R^{15}-OR^{14}$, $-R^{15}-OC(O)-R^{14}$, $-R^{15}-N(R^{14})_2$, $-R^{15}-C(O)R^{14}$, $-R^{15}-C(O)OR^{14}$, $-R^{15}-C(O)N(R^{14})_2$, $-R^{15}-N(R^{14})C(O)OR^{14}$, $-R^{15}-N(R^{14})C(O)R^{14}$, $-R^{15}-N(R^{14})S(O)_tR^{14}$ (where *t* is 1 or 2), $-R^{15}-S(O)_tOR^{14}$ (where *t* is 1 or 2), $-R^{15}-S(O)_pR^{14}$ (where *p* is 0, 1 or 2), and $-R^{15}-S(O)_tN(R^{14})_2$ (where *t* is 1 or 2), where each R^{14} is independently hydrogen, alkyl, haloalkyl, cycloalkyl, cycloalkylalkyl, aryl, aralkyl, heterocyclyl, heterocyclylalkyl, heteroaryl or heteroarylalkyl, and each R^{15} is independently a direct bond or a straight or branched alkylene or alkenylene chain, and where each of the above substituents is unsubstituted unless otherwise indicated.

"N-heteroaryl" refers to a heteroaryl radical as defined above containing at least one nitrogen and where the point of attachment of the heteroaryl radical to the rest of the

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molecule is through a nitrogen atom in the heteroaryl radical. An N-heteroaryl radical may be optionally substituted as described above for heteroaryl radicals.

"Heteroarylalkyl" refers to a radical of the formula $-R_aR_g$ where R_a is an alkyl radical as defined above and R_g is a heteroaryl radical as defined above. The heteroaryl part of the heteroarylalkyl radical may be optionally substituted as defined above for a heteroaryl group. The alkyl part of the heteroarylalkyl radical may be optionally substituted as defined above for an alkyl group.

"Heteroarylalkenyl" refers to a radical of the formula $-R_cR_g$ where R_c is an alkenyl radical as defined above and R_g is a heteroaryl radical as defined above. The heteroaryl part of the heteroarylalkenyl radical may be optionally substituted as defined above for a heteroaryl group. The alkenyl part of the heteroarylalkenyl radical may be optionally substituted as defined above for an alkenyl group.

"Heteroarylalkynyl" refers to a radical of the formula $-R_dR_g$ where R_d is an alkynyl radical as defined above and R_g is a heteroaryl radical as defined above. The heteroaryl part of the heteroarylalkynyl radical may be optionally substituted as defined above for a heteroaryl group. The alkynyl part of the heteroarylalkynyl radical may be optionally substituted as defined above for an alkynyl group.

"Hydroxyalkyl" refers to an alkyl radical as defined above which is substituted by one or more hydroxy groups (-OH).

"Hydroxyalkenyl" refers to an alkenyl radical as defined above which is substituted by one or more hydroxy groups (-OH).

"Hydroxyalkynyl" refers to an alkynyl radical as defined above which is substituted by one or more hydroxy groups (-OH).

Certain chemical groups named herein may be preceded by a shorthand notation indicating the total number of carbon atoms that are to be found in the indicated chemical group. For example; C₇-C₁₂alkyl describes an alkyl group, as defined below, having a total of 7 to 12 carbon atoms, and C₄-C₁₂cycloalkylalkyl describes a cycloalkylalkyl group, as defined below, having a total of 4 to 12 carbon atoms. The total number of carbons in the shorthand notation does not include carbons that may exist in substituents of the group described.

"Prodrugs" is meant to indicate a compound that may be converted under physiological conditions or by solvolysis to a biologically active compound of the invention. Thus, the term "prodrug" refers to a precursor of a compound of the invention that is pharmaceutically acceptable. A prodrug may be inactive when administered to a subject in need thereof, but is converted *in vivo* to an active compound of the invention

for example, by hydrolysis in blood. The prodrug compound often offers advantages of solubility, tissue compatibility or delayed release in a mammalian organism (see, Bundgard, H., Design of Prodrugs (1985), pp. 7-9, 21-24 (Elsevier, Amsterdam).

A discussion of prodrugs is provided in Higuchi, T., *et al.*, "Pro-drugs as Novel Delivery Systems," A.C.S. Symposium Series, Vol. 14, and in Bioreversible Carriers in Drug Design, ed. Edward B. Roche, American Pharmaceutical Association and Pergamon Press, 1987.

The term "prodrug" is also meant to include any covalently bonded carriers, which release the active compound of the invention *in vivo* when such prodrug is administered to a mammalian subject. Prodrugs of a compound of the invention may be prepared by modifying functional groups present in the compound of the invention in such a way that the modifications are cleaved, either in routine manipulation or *in vivo*, to the parent compound of the invention. Prodrugs include compounds of the invention wherein a hydroxy, amino or mercapto group is bonded to any group that, when the prodrug of the compound of the invention is administered to a mammalian subject, cleaves to form a free hydroxy, free amino or free mercapto group, respectively. Examples of prodrugs include, but are not limited to, acetate, formate and benzoate derivatives of alcohol or amine functional groups in the compounds of the invention and the like.

"Stable compound" and "stable structure" are meant to indicate a compound that is sufficiently robust to survive isolation to a useful degree of purity from a reaction mixture, and formulation into an efficacious therapeutic agent.

"Mammal" includes humans and domestic animals, such as cats, dogs, swine, cattle, sheep, goats, horses, rabbits, and the like. Preferably, for purposes of this invention, the mammal is a human.

"Optional" or "optionally" means that the subsequently described event of circumstances may or may not occur, and that the description includes instances where said event or circumstance occurs and instances in which it does not. For example, "optionally substituted aryl" means that the aryl radical may or may not be substituted and that the description includes both substituted aryl radicals and aryl radicals having no substitution.

"Pharmaceutically acceptable excipient" includes without limitation any adjuvant, carrier, excipient, glidant, sweetening agent, diluent, preservative, dye/colorant, flavor enhancer, surfactant, wetting agent, dispersing agent, suspending agent, stabilizer, isotonic agent, solvent, or emulsifier which has been approved by the United States Food and Drug Administration as being acceptable for use in humans or domestic

animals.

"Pharmaceutically acceptable salt" includes both acid and base addition salts.

"Pharmaceutically acceptable acid addition salt" refers to those salts which retain the biological effectiveness and properties of the free bases, which are not biologically or otherwise undesirable, and which are formed with inorganic acids such as, but not limited to, hydrochloric acid, hydrobromic acid, sulfuric acid, nitric acid, phosphoric acid and the like, and organic acids such as, but not limited to, acetic acid, 2,2-dichloroacetic acid, adipic acid, alginic acid, ascorbic acid, aspartic acid, benzenesulfonic acid, benzoic acid, 4-acetamidobenzoic acid, camphoric acid, camphor-10-sulfonic acid, capric acid, caproic acid, caprylic acid, carbonic acid, cinnamic acid, citric acid, cyclamic acid, dodecylsulfonic acid, ethane-1,2-disulfonic acid, ethanesulfonic acid, 2-hydroxyethanesulfonic acid, formic acid, fumaric acid, galactaric acid, gentisic acid, glucoheptonic acid, gluconic acid, glucuronic acid, glutamic acid, glutaric acid, 2-oxo-glutaric acid, glycerophosphoric acid, glycolic acid, hippuric acid, isobutyric acid, lactic acid, lactobionic acid, lauric acid, maleic acid, malic acid, malonic acid, mandelic acid, methanesulfonic acid, mucic acid, naphthalene-1,5-disulfonic acid, naphthalene-2-sulfonic acid, 1-hydroxy-2-naphthoic acid, nicotinic acid, oleic acid, orotic acid, oxalic acid, palmitic acid, pamoic acid, propionic acid, pyroglutamic acid, pyruvic acid, salicylic acid, 4-aminosalicylic acid, sebacic acid, stearic acid, succinic acid, tartaric acid, thiocyanic acid, *p*-toluenesulfonic acid, trifluoroacetic acid, undecylenic acid, and the like.

"Pharmaceutically acceptable base addition salt" refers to those salts which retain the biological effectiveness and properties of the free acids, which are not biologically or otherwise undesirable. These salts are prepared from addition of an inorganic base or an organic base to the free acid. Salts derived from inorganic bases include, but are not limited to, the sodium, potassium, lithium, ammonium, calcium, magnesium, iron, zinc, copper, manganese, aluminum salts and the like. Preferred inorganic salts are the ammonium, sodium, potassium, calcium, and magnesium salts. Salts derived from organic bases include, but are not limited to, salts of primary, secondary, and tertiary amines, substituted amines including naturally occurring substituted amines, cyclic amines and basic ion exchange resins, such as ammonia, isopropylamine, trimethylamine, diethylamine, triethylamine, tripropylamine, diethanolamine, ethanolamine, 2-dimethylaminoethanol, 2-diethylaminoethanol, dicyclohexylamine, lysine, arginine, histidine, caffeine, procaine, hydrabamine, choline, betaine, benethamine, benzathine, ethylenediamine, glucosamine, methylglucamine, theobromine, triethanolamine, tromethamine, purines, piperazine, piperidine,

N-ethylpiperidine, polyamine resins and the like. Particularly preferred organic bases are isopropylamine, diethylamine, ethanolamine, trimethylamine, dicyclohexylamine, choline and caffeine.

Often crystallizations produce a solvate of the compound of the invention. As
5 used herein, the term "solvate" refers to an aggregate that comprises one or more molecules of a compound of the invention with one or more molecules of solvent. The solvent may be water, in which case the solvate may be a hydrate. Alternatively, the solvent may be an organic solvent. Thus, the compounds of the present invention may exist as a hydrate, including a monohydrate, dihydrate, hemihydrate, sesquihydrate,
10 trihydrate, tetrahydrate and the like, as well as the corresponding solvated forms. The compound of the invention may be true solvates, while in other cases, the compound of the invention may merely retain adventitious water or be a mixture of water plus some adventitious solvent.

A "pharmaceutical composition" refers to a formulation of a compound of the
15 invention and a medium generally accepted in the art for the delivery of the biologically active compound to mammals, for example, humans. Such a medium includes all pharmaceutically acceptable carriers, diluents or excipients therefor.

"Therapeutically effective amount" refers to that amount of a compound of the invention which, when administered to a mammal, preferably a human, is sufficient to
20 effect treatment, as defined below, of a disease or condition of interest in the mammal, preferably a human. The amount of a compound of the invention which constitutes a "therapeutically effective amount" will vary depending on the compound, the disease or condition and its severity, and the age of the mammal to be treated, but can be determined routinely by one of ordinary skill in the art having regard to his own
25 knowledge and to this disclosure.

"Treating" or "treatment" as used herein covers the treatment of the disease or condition of interest in a mammal, preferably a human, having the disease or condition of interest, and includes:

- (i) preventing the disease or condition from occurring in a mammal, in
30 particular, when such mammal is predisposed to the condition but has not yet been diagnosed as having it;
- (ii) inhibiting the disease or condition, *i.e.*, arresting its development;
- (iii) relieving the disease or condition, *i.e.*, causing regression of the disease or condition; or
- 35 (iv) stabilizing the disease or condition.

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As used herein, the terms "disease" and "condition" may be used interchangeably or may be different in that the particular malady or condition may not have a known causative agent (so that etiology has not yet been worked out) and it is therefore not yet recognized as a disease but only as an undesirable condition or syndrome, wherein a
5 more or less specific set of symptoms have been identified by clinicians.

The compounds of the invention, or their pharmaceutically acceptable salts may contain one or more asymmetric centres and may thus give rise to enantiomers, diastereomers, and other stereoisomeric forms that may be defined, in terms of absolute stereochemistry, as (*R*)- or (*S*)- or, as (*D*)- or (*L*)- for amino acids. The present invention
10 is meant to include all such possible isomers, as well as their racemic and optically pure forms. Optically active (+) and (-), (*R*)- and (*S*)-, or (*D*)- and (*L*)- isomers may be prepared using chiral synthons or chiral reagents, or resolved using conventional techniques, such as HPLC using a chiral column. When the compounds described herein contain olefinic double bonds or other centres of geometric asymmetry, and
15 unless specified otherwise, it is intended that the compounds include both *E* and *Z* geometric isomers. Likewise, all tautomeric forms are also intended to be included.

A "stereoisomer" refers to a compound made up of the same atoms bonded by the same bonds but having different three-dimensional structures, which are not interchangeable. The present invention contemplates various stereoisomers and
20 mixtures thereof and includes "enantiomers", which refers to two stereoisomers whose molecules are nonsuperimposable mirror images of one another.

A "tautomer" refers to a proton shift from one atom of a molecule to another atom of the same molecule. The present invention includes tautomers of any said compounds.

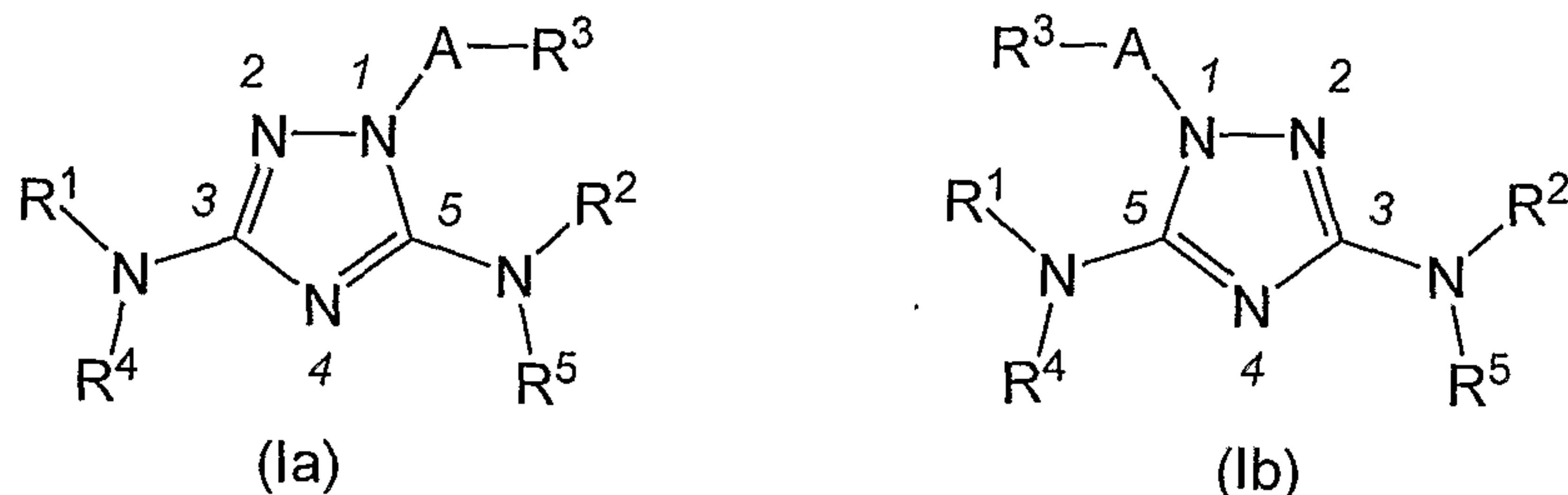
"Atropisomers" are stereoisomers resulting from hindered rotation about single
25 bonds where the barrier to rotation is high enough to allow for the isolation of the conformers (Eliel, E. L.; Wilen, S. H. *Stereochemistry of Organic Compounds*; Wiley & Sons: New York, 1994; Chapter 14). Atropisomerism is significant because it introduces an element of chirality in the absence of stereogenic atoms. The invention is meant to encompass atropisomers, for example in cases of limited rotation around the single
30 bonds emanating from the core triazole structure, atropisomers are also possible and are also specifically included in the compounds and/or prodrugs of the invention.

The chemical naming protocol and structure diagrams used herein are a modified form of the I.U.P.A.C. nomenclature system wherein the compounds of the invention are named herein as derivatives of the central core structure, *i.e.*, the triazole structure. For
35 complex chemical names employed herein, a substituent group is named before the

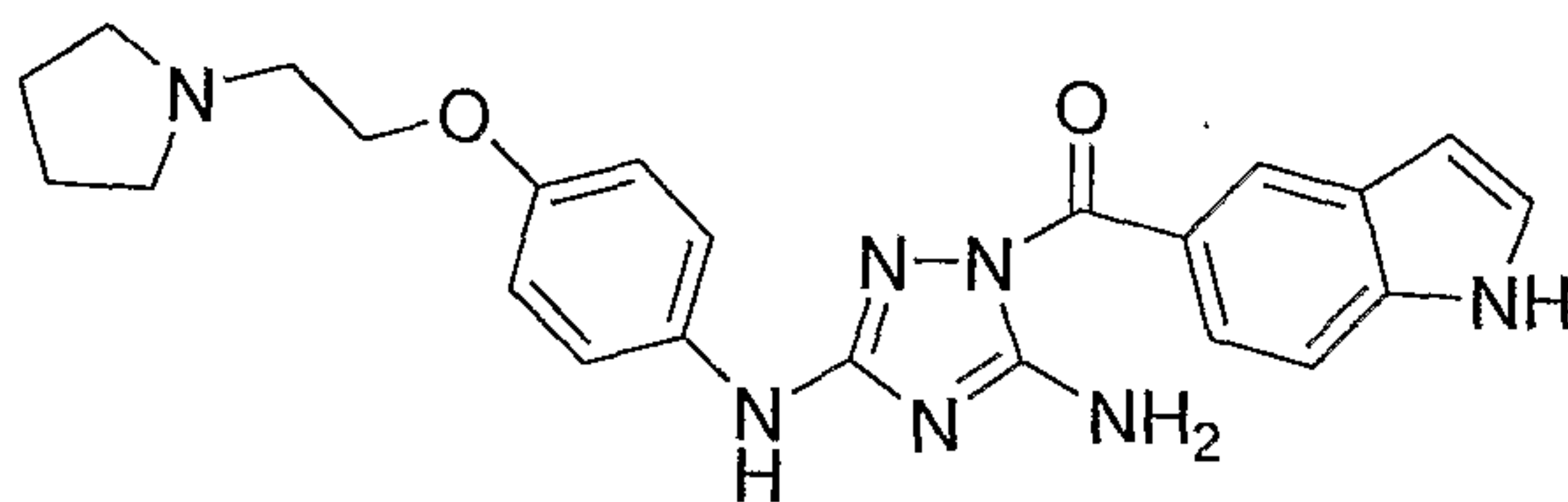
FIG. 1

group to which it attaches. For example, cyclopropylethyl comprises an ethyl backbone with cyclopropyl substituent. In chemical structure diagrams, all bonds are identified, except for some carbon atoms, which are assumed to be bonded to sufficient hydrogen atoms to complete the valency.

- 5 The numbering system of the ring atoms in compounds of formula (Ia) and (Ib) is shown below:



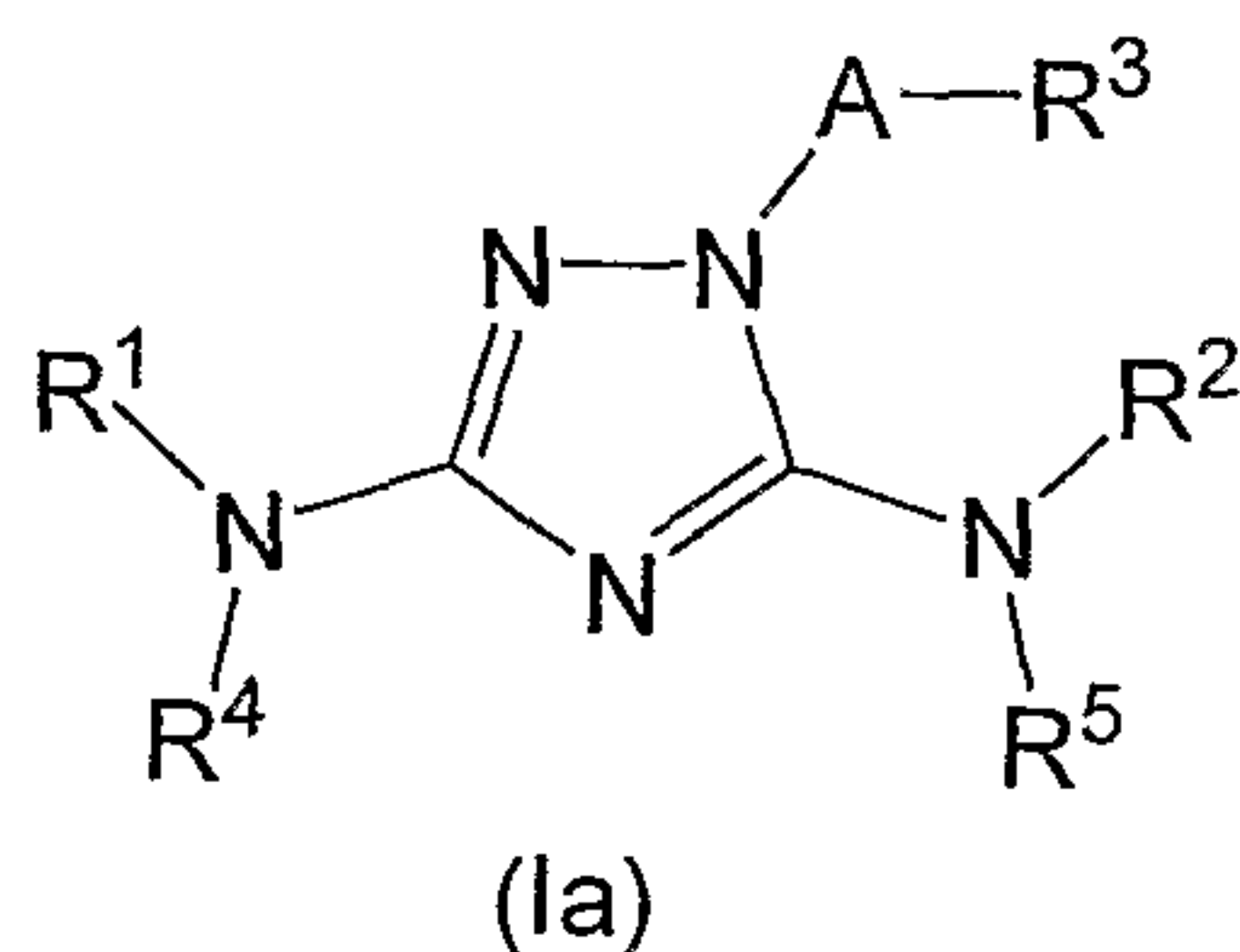
- For example, a compound of formula (Ia) wherein A is -C(O)-, R¹ is phenyl substituted at the 4-position by -R⁸-OR¹⁰ (where R⁸ is a direct bond and R¹⁰ is 2-pyrrolidin-1-ylethyl); R², R⁴ and R⁵ are each hydrogen and R³ is 1*H*-indol-5-yl; *i.e.*, a compound of the following formula:
- 10



is named herein as 5-amino-1-(1*H*-indol-5-yl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1*H*-1,2,4-triazole.

15 Embodiments of the Invention

One embodiment of the various aspects of the invention set forth above in the Summary of the Invention are compounds of formula (Ia):



wherein:

- 20 A is -C(O)-;

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50

R¹ is one of the following:

a) aryl substituted with one or more substituents selected from the group consisting of halo, haloalkyl, alkyl, optionally substituted heteroaryl, optionally substituted heterocyclyl, -R⁸-OR¹⁰, -R⁸-O-R⁹-OR¹⁰, -R⁸-O-R⁹-O-R⁹-OR¹⁰,
5 -R⁸-O-R⁹-CN, -R⁸-O-R⁹-C(O)OR¹⁰, -R⁸-O-R⁹-C(O)N(R⁶)R⁷, -R⁸-O-R⁹-S(O)_pR⁶ (where p is 0, 1 or 2), -R⁸-O-R⁹-N(R⁶)R⁷, -R⁸-O-R⁹-C(NR¹¹)N(R¹¹)H, and -R⁸-N(R⁶)C(O)R¹⁰; or

b) heteroaryl optionally substituted with one or more substituents selected from the group consisting of alkyl, halo, oxo, -R⁸-OR¹⁰, -R⁸-C(O)OR¹⁰, -R⁸-C(O)N(R⁶)R⁷ and -R⁸-N(R⁶)R⁷; or
10

c) heterocyclyl optionally substituted with one or more substituents selected from the group consisting of halo, haloalkyl, alkyl, oxo, -R⁸-OR¹⁰, -R⁸-C(O)OR¹⁰, -R⁸-C(O)N(R⁶)R⁷, -R⁸-S(O)_pR¹⁰ (where p is 0, 1 or 2) and -R⁸-N(R⁶)R⁷;

d) heterocyclylalkyl optionally substituted with one or more substituents selected from the group consisting of halo, haloalkyl, alkyl, optionally substituted aryl, optionally substituted aralkyl, -R⁸-OR¹⁰, -R⁸-C(O)OR¹⁰, -R⁸-C(O)N(R⁶)R⁷ and -R⁸-N(R⁶)R⁷; or
15

e) cycloalkyl optionally substituted with one or more substituents selected from the group consisting of halo, haloalkyl, alkyl, oxo, -R⁸-OR¹⁰, -R⁸-C(O)OR¹⁰, -R⁸-C(O)N(R⁶)R⁷, -R⁸-S(O)_pR¹⁰ (where p is 0, 1 or 2) and -R⁸-N(R⁶)R⁷;
20

R² is hydrogen, alkyl or -C(O)R¹⁰;

R⁴ and R⁵ are each hydrogen or alkyl;

R³ is one of the following:

a) alkyl optionally substituted with one or more substituents selected from the group consisting of halo, cyano, nitro, oxo, thioxo, trimethylsilyl, -OR¹⁴, -OC(O)-R¹⁴, -N(R¹⁴)₂, -C(O)R¹⁴, -C(O)OR¹⁴, -C(O)N(R¹⁴)₂, -N(R¹⁴)C(O)OR¹⁴, -N(R¹⁴)C(O)R¹⁴, -N(R¹⁴)S(O)_tR¹⁴ (where t is 1 or 2), -S(O)_tOR¹⁴ (where t is 1 or 2), -S(O)_pR¹⁴ (where p is 0, 1 or 2), and -S(O)_tN(R¹⁴)₂ (where t is 1 or 2) where each R¹⁴ is independently hydrogen, alkyl, haloalkyl, cycloalkyl, cycloalkylalkyl, aryl (optionally substituted with one or more halo groups), aralkyl, heterocyclyl, heterocyclylalkyl, heteroaryl or heteroarylalkyl;
25
30

b) cycloalkyl optionally substituted with one or more substituents selected from the group consisting of -R⁸-OR¹⁰, alkyl, halo, haloalkyl, aryl, and aralkyl;

c) aryl substituted with one or more substituents selected from the group consisting of alkyl, halo, haloalkyl, nitro, cycloalkyl, cycloalkylalkyl, optionally
35

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substituted aryl, optionally substituted heteroaryl, optionally substituted heterocyclyl, $-R^8-OR^{10}$, $-R^8-C(O)OR^{10}$, $-R^8-OC(O)R^{10}$, $-R^8-O-R^9-C(O)OR^{10}$, $-R^8-O-R^9-C(O)N(R^6)R^7$, $-S(O)_pR^6$ (where p is 0, 1 or 2), $-S(O)_tN(R^6)R^7$ (where t is 1 or 2), $-R^8-N(R^6)R^7$, $-R^8-N(R^6)C(O)R^{10}$, $-R^8-N(R^6)C(O)OR^{10}$ and $-R^8-CN$;

5 d) aralkyl, wherein:

(1) the alkyl part of the aralkyl radical is optionally substituted with one or more substituents selected from the group consisting of halo, cyano, nitro, oxo, thioxo, trimethylsilanyl, $-OR^{14}$, $-OC(O)-R^{14}$, $-N(R^{14})_2$, $-C(O)R^{14}$, $-C(O)OR^{14}$, $-C(O)N(R^{14})_2$, $-N(R^{14})C(O)OR^{14}$, $-N(R^{14})C(O)R^{14}$, $-N(R^{14})S(O)_tR^{14}$ (where t is 1 or 2), $-S(O)_tOR^{14}$ (where t is 1 or 2), $-S(O)_pR^{14}$ (where p is 0, 1 or 2), and $-S(O)_tN(R^{14})_2$ (where t is 1 or 2) where each R^{14} is independently hydrogen, alkyl, haloalkyl, cycloalkyl, cycloalkylalkyl, aryl (optionally substituted with one or more halo groups), aralkyl, heterocyclyl, heterocyclalkyl, heteroaryl or heteroarylalkyl; and

15 (2) the aryl part of the aralkyl radical is optionally substituted with one or more substituents selected from the group consisting of alkyl, alkenyl, alkynyl, halo, haloalkyl, haloalkenyl, haloalkynyl, cyano, nitro, aryl, aralkyl, aralkenyl, aralkynyl, cycloalkyl, cycloalkylalkyl, cycloalkylalkenyl, cycloalkylalkynyl, heterocyclyl, heterocyclalkyl, heterocyclalkenyl, heterocyclalkynyl, heteroaryl, heteroarylalkyl, heteroarylalkenyl, heteroarylalkynyl, $-R^{15}-OR^{14}$, $-R^{15}-OC(O)-R^{14}$, $-R^{15}-N(R^{14})_2$, $-R^{15}-C(O)R^{14}$, $-R^{15}-C(O)OR^{14}$, $-R^{15}-C(O)N(R^{14})_2$, $-R^{15}-O-R^{16}-C(O)N(R^{14})_2$, $-R^{15}-N(R^{14})C(O)OR^{14}$, $-R^{15}-N(R^{14})C(O)R^{14}$, $-R^{15}-N(R^{14})S(O)_tR^{14}$ (where t is 1 or 2), $-R^{15}-S(O)_tOR^{14}$ (where t is 1 or 2), $-R^{15}-S(O)_pR^{14}$ (where p is 0, 1 or 2), and $-R^{15}-S(O)_tN(R^{14})_2$ (where t is 1 or 2), where each R^{14} is independently hydrogen, alkyl, haloalkyl, cycloalkyl, cycloalkylalkyl, aryl, aralkyl, heterocyclyl, heterocyclalkyl, heteroaryl or heteroarylalkyl, each R^{15} is independently a direct bond or a straight or branched alkylene or alkenylene chain, and R^{16} is a straight or branched alkylene or alkenylene chain;

20 e) heteroaryl optionally substituted with one or more substituents selected from the group consisting of alkyl, oxo, and $-R^8-OR^{10}$; or

f) heteroarylalkenyl where the heteroaryl part of the heteroarylalkyl radical is optionally substituted with one or more substituents selected from the group consisting of alkyl, halo, haloalkyl, aryl and aralkyl;

35 R^6 and R^7 are each independently selected from the group consisting of hydrogen, alkyl,

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alkenyl, alkynyl, haloalkyl, haloalkenyl, haloalkynyl, hydroxyalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted aralkenyl, optionally substituted aralkynyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted cycloalkylalkenyl, optionally substituted cycloalkylalkynyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heterocyclylalkenyl, optionally substituted heterocyclylalkynyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, optionally substituted heteroarylalkenyl, optionally substituted heteroarylalkynyl, $-R^9-OR^{10}$, $-R^9-CN$, $-R^9-NO_2$, $-R^9-N(R^{10})_2$, $-R^9-C(O)OR^{10}$ and $-R^9-C(O)N(R^{10})_2$;

optionally, R^6 and R^7 , together with the nitrogen to which they are attached, form an optionally substituted *N*-heteroaryl or an optionally substituted *N*-heterocyclyl;

each R^8 is independently selected from the group consisting of a direct bond, an optionally substituted straight or branched alkylene chain, an optionally substituted straight or branched alkenylene chain and an optionally substituted straight or branched alkynylene chain;

each R^9 is independently selected from the group consisting of an optionally substituted straight or branched alkylene chain, an optionally substituted straight or branched alkenylene chain and an optionally substituted straight or branched alkynylene chain; and

each R^{10} is independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, haloalkyl, haloalkenyl, haloalkynyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted aralkenyl, optionally substituted aralkynyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted cycloalkylalkenyl, optionally substituted cycloalkylalkynyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heterocyclylalkenyl, optionally substituted heterocyclylalkynyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, optionally substituted heteroarylalkenyl, optionally substituted heteroarylalkynyl; and

each R^{11} is hydrogen, alkyl, cyano, nitro or $-OR^{10}$.

Another embodiment of the compounds of formula (Ia) are compounds of formula (Ia) wherein:

A is $-C(O)-$;

R^1 is one of the following:

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- a) aryl substituted with one or more substituents selected from the group consisting of halo, haloalkyl, alkyl, optionally substituted heteroaryl, optionally substituted heterocyclyl, $-R^8-OR^{10}$, $-R^8-O-R^9-OR^{10}$, $-R^8-O-R^9-O-R^9-OR^{10}$, $-R^8-O-R^9-CN$, $-R^8-O-R^9-C(O)OR^{10}$, $-R^8-O-R^9-C(O)N(R^6)R^7$, $-R^8-O-R^9-S(O)_pR^6$ (where p is 0, 1 or 2), $-R^8-O-R^9-N(R^6)R^7$, $-R^8-O-R^9-C(NR^{11})N(R^{11})H$, and $-R^8-N(R^6)C(O)R^{10}$; or
- b) heteroaryl optionally substituted with one or more substituents selected from the group consisting of alkyl, halo, oxo, $-R^8-OR^{10}$, $-R^8-C(O)OR^{10}$, $-R^8-C(O)N(R^6)R^7$ and $-R^8-N(R^6)R^7$;
- c) heterocyclyl optionally substituted with one or more substituents selected from the group consisting of halo, haloalkyl, alkyl, oxo, $-R^8-OR^{10}$, $-R^8-C(O)OR^{10}$, $-R^8-C(O)N(R^6)R^7$, $-R^8-S(O)_pR^{10}$ (where p is 0, 1 or 2) and $-R^8-N(R^6)R^7$; or
- d) heterocyclylalkyl optionally substituted with one or more substituents selected from the group consisting of halo, haloalkyl, alkyl, optionally substituted aryl, optionally substituted aralkyl, $-R^8-OR^{10}$, $-R^8-C(O)OR^{10}$, $-R^8-C(O)N(R^6)R^7$ and $-R^8-N(R^6)R^7$;

R^2 is hydrogen, alkyl or $-C(O)R^{10}$;

R^4 and R^5 are each hydrogen or alkyl;

R^3 is one of the following:

- a) alkyl optionally substituted with one or more substituents selected from the group consisting of halo, cyano, nitro, oxo, thioxo, trimethylsilyl, $-OR^{14}$, $-OC(O)-R^{14}$, $-N(R^{14})_2$, $-C(O)R^{14}$, $-C(O)OR^{14}$, $-C(O)N(R^{14})_2$, $-N(R^{14})C(O)OR^{14}$, $-N(R^{14})C(O)R^{14}$, $-N(R^{14})S(O)_tR^{14}$ (where t is 1 or 2), $-S(O)_tOR^{14}$ (where t is 1 or 2), $-S(O)_pR^{14}$ (where p is 0, 1 or 2), and $-S(O)_tN(R^{14})_2$ (where t is 1 or 2) where each R^{14} is independently hydrogen, alkyl, haloalkyl, cycloalkyl, cycloalkylalkyl, aryl (optionally substituted with one or more halo groups), aralkyl, heterocyclyl, heterocyclylalkyl, heteroaryl or heteroarylalkyl;
- b) cycloalkyl optionally substituted with one or more substituents selected from the group consisting of $-R^8-OR^{10}$, alkyl, halo, haloalkyl, aryl, and aralkyl;
- c) aryl substituted with one or more substituents selected from the group consisting of alkyl, halo, haloalkyl, nitro, cycloalkyl, cycloalkylalkyl, optionally substituted aryl, optionally substituted heteroaryl, optionally substituted heterocyclyl, $-R^8-OR^{10}$, $-R^8-C(O)OR^{10}$, $-R^8-OC(O)R^{10}$, $-R^8-O-R^9-C(O)OR^{10}$, $-R^8-O-R^9-C(O)N(R^6)R^7$, $-S(O)_pR^6$ (where p is 0, 1 or 2), $-S(O)_tN(R^6)R^7$ (where t is 1 or 2), $-R^8-N(R^6)R^7$, $-R^8-N(R^6)C(O)R^{10}$, $-R^8-N(R^6)C(O)OR^{10}$ and $-R^8-CN$;

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d) aralkyl, wherein:

(1) the alkyl part of the aralkyl radical is optionally substituted with one or more substituents selected from the group consisting of halo, cyano, nitro, oxo, thioxo, trimethylsilyl, $-OR^{14}$, $-OC(O)-R^{14}$, $-N(R^{14})_2$, $-C(O)R^{14}$, $-C(O)OR^{14}$, $-C(O)N(R^{14})_2$, $-N(R^{14})C(O)OR^{14}$, $-N(R^{14})C(O)R^{14}$, $-N(R^{14})S(O)_tR^{14}$ (where t is 1 or 2), $-S(O)_tOR^{14}$ (where t is 1 or 2), $-S(O)_pR^{14}$ (where p is 0, 1 or 2), and $-S(O)_tN(R^{14})_2$ (where t is 1 or 2) where each R^{14} is independently hydrogen, alkyl, haloalkyl, cycloalkyl, cycloalkylalkyl, aryl (optionally substituted with one or more halo groups), aralkyl, heterocyclyl, heterocyclalkyl, heteroaryl or heteroarylalkyl; and

(2) the aryl part of the aralkyl radical is optionally substituted with one or more substituents selected from the group consisting of alkyl, alkenyl, alkynyl, halo, haloalkyl, haloalkenyl, haloalkynyl, cyano, nitro, aryl, aralkyl, aralkenyl, aralkynyl, cycloalkyl, cycloalkylalkyl, cycloalkylalkenyl, cycloalkylalkynyl, heterocyclyl, heterocyclalkyl, heterocyclalkenyl, heterocyclalkynyl, heteroaryl, heteroarylalkyl, heteroarylalkenyl, heteroarylalkynyl, $-R^{15}-OR^{14}$, $-R^{15}-OC(O)-R^{14}$, $-R^{15}-N(R^{14})_2$, $-R^{15}-C(O)R^{14}$, $-R^{15}-C(O)OR^{14}$, $-R^{15}-C(O)N(R^{14})_2$, $-R^{15}-O-R^{16}-C(O)N(R^{14})_2$, $-R^{15}-N(R^{14})C(O)OR^{14}$, $-R^{15}-N(R^{14})C(O)R^{14}$, $-R^{15}-N(R^{14})S(O)_tR^{14}$ (where t is 1 or 2), $-R^{15}-S(O)_tOR^{14}$ (where t is 1 or 2), $-R^{15}-S(O)_pR^{14}$ (where p is 0, 1 or 2), and $-R^{15}-S(O)_tN(R^{14})_2$ (where t is 1 or 2), where each R^{14} is independently hydrogen, alkyl, haloalkyl, cycloalkyl, cycloalkylalkyl, aryl, aralkyl, heterocyclyl, heterocyclalkyl, heteroaryl or heteroarylalkyl, each R^{15} is independently a direct bond or a straight or branched alkylene or alkenylene chain, and R^{16} is a straight or branched alkylene or alkenylene chain;

e) heteroaryl optionally substituted with one or more substituents selected from the group consisting of alkyl, oxo, and $-R^8-OR^{10}$; or

f) heteroarylalkenyl where the heteroaryl part of the heteroarylalkyl radical is optionally substituted with one or more substituents selected from the group consisting of alkyl, halo, haloalkyl, aryl and aralkyl;

R^6 and R^7 are each independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, haloalkyl, haloalkenyl, haloalkynyl, hydroxyalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted aralkenyl, optionally substituted aralkynyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted cycloalkylalkenyl, optionally

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substituted cycloalkylalkynyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heterocyclylalkenyl, optionally substituted heterocyclylalkynyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, optionally substituted heteroarylalkenyl, optionally substituted heteroarylalkynyl, -R⁹-OR¹⁰, -R⁹-CN, -R⁹-NO₂, -R⁹-N(R¹⁰)₂, -R⁹-C(O)OR¹⁰ and -R⁹-C(O)N(R¹⁰)₂;

optionally, R⁶ and R⁷, together with the nitrogen to which they are attached, form an optionally substituted *N*-heteroaryl or an optionally substituted *N*-heterocyclyl;

each R⁸ is independently selected from the group consisting of a direct bond, an

optionally substituted straight or branched alkylene chain, an optionally substituted straight or branched alkenylene chain and an optionally substituted straight or branched alkynylene chain;

each R⁹ is independently selected from the group consisting of an optionally substituted straight or branched alkylene chain, an optionally substituted straight or branched alkenylene chain and an optionally substituted straight or branched alkynylene chain; and

each R¹⁰ is independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, haloalkyl, haloalkenyl, haloalkynyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted aralkenyl, optionally substituted aralkynyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted cycloalkylalkenyl, optionally substituted cycloalkylalkynyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heterocyclylalkenyl, optionally substituted heterocyclylalkynyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, optionally substituted heteroarylalkenyl, optionally substituted heteroarylalkynyl; and

each R¹¹ is hydrogen, alkyl, cyano, nitro or -OR¹⁰.

Another embodiment of the compounds of formula (Ia) are compounds of formula (Ia) wherein:

A is -C(O)-;

R¹ is aryl substituted with one or more substituents selected from the group consisting of halo, haloalkyl, alkyl, optionally substituted heteroaryl, optionally substituted heterocyclyl, -R⁸-OR¹⁰, -R⁸-O-R⁹-OR¹⁰, -R⁸-O-R⁹-O-R⁹-OR¹⁰, -R⁸-O-R⁹-CN, -R⁸-O-R⁹-C(O)OR¹⁰, -R⁸-O-R⁹-C(O)N(R⁶)R⁷, -R⁸-O-R⁹-S(O)_pR⁶ (where p is 0, 1 or 2), -R⁸-O-R⁹-N(R⁶)R⁷, -R⁸-O-R⁹-C(NR¹¹)N(R¹¹)H, and -R⁸-N(R⁶)C(O)R¹⁰;

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R^2 , R^4 and R^5 are each hydrogen or alkyl;

R^3 is one of the following:

- a) alkyl optionally substituted with one or more substituents selected from the group consisting of halo, cyano, nitro, oxo, thioxo, trimethylsilyl, $-OR^{14}$, $-OC(O)-R^{14}$, $-N(R^{14})_2$, $-C(O)R^{14}$, $-C(O)OR^{14}$, $-C(O)N(R^{14})_2$, $-N(R^{14})C(O)OR^{14}$, $-N(R^{14})C(O)R^{14}$, $-N(R^{14})S(O)_tR^{14}$ (where t is 1 or 2), $-S(O)_tOR^{14}$ (where t is 1 or 2), $-S(O)_pR^{14}$ (where p is 0, 1 or 2), and $-S(O)_tN(R^{14})_2$ (where t is 1 or 2) where each R^{14} is independently hydrogen, alkyl, haloalkyl, cycloalkyl, cycloalkylalkyl, aryl (optionally substituted with one or more halo groups), aralkyl, heterocyclyl, heterocylalkyl, heteroaryl or heteroarylalkyl;
- b) cycloalkyl optionally substituted with one or more substituents selected from the group consisting of $-R^8-OR^{10}$, alkyl, halo, haloalkyl, aryl, and aralkyl;
- c) aryl substituted with one or more substituents selected from the group consisting of alkyl, halo, haloalkyl, nitro, cycloalkyl, cycloalkylalkyl, optionally substituted aryl, optionally substituted heteroaryl, optionally substituted heterocyclyl, $-R^8-OR^{10}$, $-R^8-C(O)OR^{10}$, $-R^8-OC(O)R^{10}$, $-R^8-O-R^9-C(O)OR^{10}$, $-R^8-O-R^9-C(O)N(R^6)R^7$, $-S(O)_pR^6$ (where p is 0, 1 or 2), $-S(O)_tN(R^6)R^7$ (where t is 1 or 2), $-R^8-N(R^6)R^7$, $-R^8-N(R^6)C(O)R^{10}$, $-R^8-N(R^6)C(O)OR^{10}$ and $-R^8-CN$;
- d) aralkyl, wherein:
 - (1) the alkyl part of the aralkyl radical is optionally substituted with one or more substituents selected from the group consisting of halo, cyano, nitro, oxo, thioxo, trimethylsilyl, $-OR^{14}$, $-OC(O)-R^{14}$, $-N(R^{14})_2$, $-C(O)R^{14}$, $-C(O)OR^{14}$, $-C(O)N(R^{14})_2$, $-N(R^{14})C(O)OR^{14}$, $-N(R^{14})C(O)R^{14}$, $-N(R^{14})S(O)_tR^{14}$ (where t is 1 or 2), $-S(O)_tOR^{14}$ (where t is 1 or 2), $-S(O)_pR^{14}$ (where p is 0, 1 or 2), and $-S(O)_tN(R^{14})_2$ (where t is 1 or 2) where each R^{14} is independently hydrogen, alkyl, haloalkyl, cycloalkyl, cycloalkylalkyl, aryl (optionally substituted with one or more halo groups), aralkyl, heterocyclyl, heterocylalkyl, heteroaryl or heteroarylalkyl; and
 - (2) the aryl part of the aralkyl radical is optionally substituted with one or more substituents selected from the group consisting of alkyl, alkenyl, alkynyl, halo, haloalkyl, haloalkenyl, haloalkynyl, cyano, nitro, aryl, aralkyl, aralkenyl, aralkynyl, cycloalkyl, cycloalkylalkyl, cycloalkylalkenyl, cycloalkylalkynyl, heterocyclyl, heterocyclalkyl, heterocyclalkenyl, heterocyclalkynyl, heteroaryl, heteroarylalkyl, heteroarylalkenyl, heteroarylalkynyl, $-R^{15}-OR^{14}$, $-R^{15}-OC(O)-R^{14}$, $-R^{15}-N(R^{14})_2$, $-R^{15}-C(O)R^{14}$, $-R^{15}-C(O)OR^{14}$, $-R^{15}-C(O)N(R^{14})_2$,

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-R¹⁵-O-R¹⁶-C(O)N(R¹⁴)₂, -R¹⁵-N(R¹⁴)C(O)OR¹⁴, -R¹⁵-N(R¹⁴)C(O)R¹⁴,
 -R¹⁵-N(R¹⁴)S(O)_tR¹⁴ (where t is 1 or 2), -R¹⁵-S(O)_tOR¹⁴ (where t is 1 or 2),
 -R¹⁵-S(O)_pR¹⁴ (where p is 0, 1 or 2), and -R¹⁵-S(O)_tN(R¹⁴)₂ (where t is 1 or 2),

where each R¹⁴ is independently hydrogen, alkyl, haloalkyl, cycloalkyl,
 5 cycloalkylalkyl, aryl, aralkyl, heterocyclyl, heterocyclalkyl, heteroaryl or
 heteroarylalkyl, each R¹⁵ is independently a direct bond or a straight or branched
 alkylene or alkenylene chain, and R¹⁶ is a straight or branched alkylene or
 alkenylene chain;

e) heteroaryl optionally substituted with one or more substituents selected
 10 from the group consisting of alkyl, oxo, and -R⁸-OR¹⁰; or

f) heteroarylalkenyl where the heteroaryl part of the heteroarylalkyl radical is
 optionally substituted with one or more substituents selected from the group
 consisting of alkyl, halo, haloalkyl, aryl and aralkyl;

R⁶ and R⁷ are each independently selected from the group consisting of hydrogen, alkyl,
 15 alkenyl, alkynyl, haloalkyl, haloalkenyl, haloalkynyl, hydroxyalkyl, optionally
 substituted aryl, optionally substituted aralkyl, optionally substituted aralkenyl,
 optionally substituted aralkynyl, optionally substituted cycloalkyl, optionally
 substituted cycloalkylalkyl, optionally substituted cycloalkylalkenyl, optionally
 substituted cycloalkylalkynyl, optionally substituted heterocyclyl, optionally
 20 substituted heterocyclalkyl, optionally substituted heterocyclalkenyl, optionally
 substituted heterocyclalkynyl, optionally substituted heteroaryl, optionally
 substituted heteroarylalkyl, optionally substituted heteroarylalkenyl, optionally
 substituted heteroarylalkynyl, -R⁹-OR¹⁰, -R⁹-CN, -R⁹-NO₂, -R⁹-N(R¹⁰)₂,
 -R⁹-C(O)OR¹⁰ and -R⁹-C(O)N(R¹⁰)₂;

25 optionally, R⁶ and R⁷, together with the nitrogen to which they are attached, form an
 optionally substituted *N*-heteroaryl or an optionally substituted *N*-heterocyclyl;

each R⁸ is independently selected from the group consisting of a direct bond, an
 optionally substituted straight or branched alkylene chain, an optionally
 substituted straight or branched alkenylene chain and an optionally substituted
 30 straight or branched alkynylene chain;

each R⁹ is independently selected from the group consisting of an optionally substituted
 straight or branched alkylene chain, an optionally substituted straight or branched
 alkenylene chain and an optionally substituted straight or branched alkynylene
 chain; and

35 each R¹⁰ is independently selected from the group consisting of hydrogen, alkyl, alkenyl,

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alkynyl, haloalkyl, haloalkenyl, haloalkynyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted aralkenyl, optionally substituted aralkynyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted cycloalkylalkenyl, optionally substituted cycloalkylalkynyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heterocyclylalkenyl, optionally substituted heterocyclylalkynyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, optionally substituted heteroarylalkenyl, optionally substituted heteroarylalkynyl; and

each R¹¹ is hydrogen, alkyl, cyano, nitro or -OR¹⁰.

Another embodiment of the compounds of formula (Ia) are compounds of formula (Ia) wherein:

A is -C(O)-;

R¹ is aryl substituted with one or more substituents selected from the group consisting of

halo, haloalkyl, alkyl, optionally substituted heteroaryl, optionally substituted heterocyclyl, -R⁸-OR¹⁰, -R⁸-O-R⁹-OR¹⁰, -R⁸-O-R⁹-O-R⁹-OR¹⁰, -R⁸-O-R⁹-CN, -R⁸-O-R⁹-C(O)OR¹⁰, -R⁸-O-R⁹-C(O)N(R⁶)R⁷, -R⁸-O-R⁹-S(O)_pR⁶ (where p is 0, 1 or 2), -R⁸-O-R⁹-N(R⁶)R⁷, -R⁸-O-R⁹-C(NR¹¹)N(R¹¹)H, and -R⁸-N(R⁶)C(O)R¹⁰;

R², R⁴ and R⁵ are each hydrogen or alkyl;

R³ is cycloalkyl optionally substituted with -R⁸-OR¹⁰; or

R³ is aryl substituted with one or more substituents selected from the group consisting of

alkyl, halo, haloalkyl, nitro, cycloalkyl, cycloalkylalkyl, optionally substituted aryl, optionally substituted heteroaryl, optionally substituted heterocyclyl, -R⁸-OR¹⁰, -R⁸-C(O)OR¹⁰, -R⁸-OC(O)R¹⁰, -R⁸-O-R⁹-C(O)OR¹⁰, -R⁸-O-R⁹-C(O)N(R⁶)R⁷, -S(O)_pR⁶ (where p is 0, 1 or 2), -S(O)_tN(R⁶)R⁷ (where t is 1 or 2), -R⁸-N(R⁶)R⁷, -R⁸-N(R⁶)C(O)R¹⁰, -R⁸-N(R⁶)C(O)OR¹⁰ and -R⁸-CN;

R⁶ and R⁷ are each independently selected from the group consisting of hydrogen, alkyl,

alkenyl, alkynyl, haloalkyl, haloalkenyl, haloalkynyl, hydroxyalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted aralkenyl, optionally substituted aralkynyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted cycloalkylalkenyl, optionally substituted cycloalkylalkynyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heterocyclylalkenyl, optionally substituted heterocyclylalkynyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, optionally substituted heteroarylalkenyl, optionally

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substituted heteroarylalkynyl, $-R^9-OR^{10}$, $-R^9-CN$, $-R^9-NO_2$, $-R^9-N(R^{10})_2$,
 $-R^9-C(O)OR^{10}$ and $-R^9-C(O)N(R^{10})_2$;

optionally, R^6 and R^7 , together with the nitrogen to which they are attached, form an
 optionally substituted *N*-heteroaryl or an optionally substituted *N*-heterocyclyl;

5 each R^8 is independently selected from the group consisting of a direct bond, an
 optionally substituted straight or branched alkylene chain, an optionally
 substituted straight or branched alkenylene chain and an optionally substituted
 straight or branched alkynylene chain;

10 each R^9 is independently selected from the group consisting of an optionally substituted
 straight or branched alkylene chain, an optionally substituted straight or branched
 alkenylene chain and an optionally substituted straight or branched alkynylene
 chain; and

15 each R^{10} is independently selected from the group consisting of hydrogen, alkyl, alkenyl,
 alkynyl, haloalkyl, haloalkenyl, haloalkynyl, optionally substituted aryl, optionally
 substituted aralkyl, optionally substituted aralkenyl, optionally substituted
 aralkynyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl,
 optionally substituted cycloalkylalkenyl, optionally substituted cycloalkylalkynyl,
 optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl,
 optionally substituted heterocyclylalkenyl, optionally substituted
 20 heterocyclylalkynyl, optionally substituted heteroaryl, optionally substituted
 heteroarylalkyl, optionally substituted heteroarylalkenyl, optionally substituted
 heteroarylalkynyl; and

each R^{11} is hydrogen, alkyl, cyano, nitro or $-OR^{10}$.

25 Another embodiment of the compounds of formula (Ia) are compounds of formula
 (Ia) wherein:

A is $-C(O)-$;

R^1 is phenyl substituted with one or more substituents selected from the group consisting
 of halo, haloalkyl, alkyl, optionally substituted heteroaryl, optionally substituted
 heterocyclyl, $-R^8-OR^{10}$, $-R^8-O-R^9-OR^{10}$, $-R^8-O-R^9-O-R^9-OR^{10}$, $-R^8-O-R^9-CN$,
 30 $-R^8-O-R^9-C(O)OR^{10}$, $-R^8-O-R^9-C(O)N(R^6)R^7$, $-R^8-O-R^9-S(O)_pR^6$ (where p is 0, 1 or
 2), $-R^8-O-R^9-N(R^6)R^7$, $-R^8-O-R^9-C(NR^{11})N(R^{11})H$, and $-R^8-N(R^6)C(O)R^{10}$;

R^2 , R^4 and R^5 are each hydrogen or alkyl;

R^3 is cycloalkyl optionally substituted with $-R^8-OR^{10}$; or

R^3 is phenyl substituted with one or more substituents selected from the group consisting
 35 of alkyl, halo, haloalkyl, nitro, cycloalkyl, cycloalkylalkyl, optionally substituted

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aryl, optionally substituted heteroaryl, optionally substituted heterocyclyl,
 $-R^8-OR^{10}$, $-R^8-C(O)OR^{10}$, $-R^8-OC(O)R^{10}$, $-R^8-O-R^9-C(O)OR^{10}$,
 $-R^8-O-R^9-C(O)N(R^6)R^7$, $-S(O)_pR^6$ (where p is 0, 1 or 2), $-S(O)_tN(R^6)R^7$ (where t is
 1 or 2), $-R^8-N(R^6)R^7$, $-R^8-N(R^6)C(O)R^{10}$, $-R^8-N(R^6)C(O)OR^{10}$, and $-R^8-CN$;

- 5 R^6 and R^7 are each independently selected from the group consisting of hydrogen, alkyl,
 alkenyl, alkynyl, haloalkyl, haloalkenyl, haloalkynyl, hydroxyalkyl, optionally
 substituted aryl, optionally substituted aralkyl, optionally substituted aralkenyl,
 optionally substituted aralkynyl, optionally substituted cycloalkyl, optionally
 substituted cycloalkylalkyl, optionally substituted cycloalkylalkenyl, optionally
 10 substituted cycloalkylalkynyl, optionally substituted heterocyclyl, optionally
 substituted heterocyclylalkyl, optionally substituted heterocyclylalkenyl, optionally
 substituted heterocyclylalkynyl, optionally substituted heteroaryl, optionally
 substituted heteroarylalkyl, optionally substituted heteroarylalkenyl, optionally
 substituted heteroarylalkynyl, $-R^9-OR^{10}$, $-R^9-CN$, $-R^9-NO_2$, $-R^9-N(R^{10})_2$,
 15 $-R^9-C(O)OR^{10}$ and $-R^9-C(O)N(R^{10})_2$;

optionally, R^6 and R^7 , together with the nitrogen to which they are attached, form an
 optionally substituted *N*-heteroaryl or an optionally substituted *N*-heterocyclyl;

- each R^8 is independently selected from the group consisting of a direct bond, an
 optionally substituted straight or branched alkylene chain, an optionally
 20 substituted straight or branched alkenylene chain and an optionally substituted
 straight or branched alkynylene chain;

- each R^9 is independently selected from the group consisting of an optionally substituted
 straight or branched alkylene chain, an optionally substituted straight or branched
 alkenylene chain and an optionally substituted straight or branched alkynylene
 25 chain; and

- each R^{10} is independently selected from the group consisting of hydrogen, alkyl, alkenyl,
 alkynyl, haloalkyl, haloalkenyl, haloalkynyl, optionally substituted aryl, optionally
 substituted aralkyl, optionally substituted aralkenyl, optionally substituted
 aralkynyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl,
 30 optionally substituted cycloalkylalkenyl, optionally substituted cycloalkylalkynyl,
 optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl,
 optionally substituted heterocyclylalkenyl, optionally substituted
 heterocyclylalkynyl, optionally substituted heteroaryl, optionally substituted
 heteroarylalkyl, optionally substituted heteroarylalkenyl, optionally substituted
 35 heteroarylalkynyl; and

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each R^{11} is hydrogen, alkyl, cyano, nitro or $-OR^{10}$.

Another embodiment of the compounds of formula (Ia) are compounds of formula (Ia) wherein:

A is $-C(O)-$;

5 R^1 is phenyl substituted with one or two substituents selected from the group consisting of halo, haloalkyl, alkyl, optionally substituted heteroaryl, optionally substituted heterocyclyl, $-R^8-OR^{10}$, $-R^8-O-R^9-OR^{10}$, $-R^8-O-R^9-O-R^9-OR^{10}$, $-R^8-O-R^9-CN$, $-R^8-O-R^9-C(O)OR^{10}$, $-R^8-O-R^9-C(O)N(R^6)R^7$, $-R^8-O-R^9-S(O)_pR^6$ (where p is 0, 1 or 2), $-R^8-O-R^9-N(R^6)R^7$, $-R^8-O-R^9-C(NR^{11})N(R^{11})H$, and $-R^8-N(R^6)C(O)R^{10}$;

10 R^2 , R^4 and R^5 are each hydrogen or alkyl;

R^3 is cycloalkyl optionally substituted with $-R^8-OR^{10}$; or

R^3 is phenyl substituted with one or more substituents selected from the group consisting of alkyl, halo, haloalkyl, nitro, cycloalkyl, cycloalkylalkyl, optionally substituted aryl, optionally substituted heteroaryl, optionally substituted heterocyclyl,
15 $-R^8-OR^{10}$, $-R^8-C(O)OR^{10}$, $-R^8-OC(O)R^{10}$, $-R^8-O-R^9-C(O)OR^{10}$, $-R^8-O-R^9-C(O)N(R^6)R^7$, $-S(O)_pR^6$ (where p is 0, 1 or 2), $-S(O)_tN(R^6)R^7$ (where t is 1 or 2), $-R^8-N(R^6)R^7$, $-R^8-N(R^6)C(O)R^{10}$, $-R^8-N(R^6)C(O)OR^{10}$ and $-R^8-CN$;

R^6 and R^7 are each independently selected from the group consisting of hydrogen, alkyl, haloalkyl, hydroxyalkyl, optionally substituted aryl, optionally substituted aralkyl,
20 optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, $-R^9-OR^{10}$, $-R^9-CN$, $-R^9-NO_2$, $-R^9-N(R^{10})_2$, $-R^9-C(O)OR^{10}$ and $-R^9-C(O)N(R^{10})_2$;

optionally, R^6 and R^7 , together with the nitrogen to which they are attached, form an

25 optionally substituted *N*-heteroaryl or an optionally substituted *N*-heterocyclyl;

each R^8 is independently selected from the group consisting of a direct bond, an optionally substituted straight or branched alkylene chain, and an optionally substituted straight or branched alkenylene chain;

each R^9 is independently selected from the group consisting of an optionally substituted
30 straight or branched alkylene chain, or an optionally substituted straight or branched alkenylene chain; and

each R^{10} is independently selected from the group consisting of hydrogen, alkyl, haloalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted
35 heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted

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heteroaryl, and optionally substituted heteroarylalkyl; and
each R¹¹ is hydrogen, alkyl, cyano, nitro or -OR¹⁰.

Another embodiment of the compounds of formula (Ia) are compounds of formula (Ia) wherein:

5 A is -C(O)-;

R¹ is phenyl substituted with one or more substituents selected from the group consisting of halo, haloalkyl, alkyl, -R⁸-OR¹⁰, -R⁸-O-R⁹-OR¹⁰, and -R⁸-O-R⁹-O-R⁹-OR¹⁰;

R², R⁴ and R⁵ are each hydrogen or alkyl;

R³ is cycloalkyl optionally substituted with -R⁸-OR¹⁰;

10 or R³ is phenyl substituted with one or more substituents selected from the group consisting of alkyl, halo, haloalkyl, nitro, cycloalkyl, cycloalkylalkyl, optionally substituted aryl, optionally substituted heteroaryl, optionally substituted heterocyclyl, -R⁸-OR¹⁰, -R⁸-C(O)OR¹⁰, -R⁸-OC(O)R¹⁰, -R⁸-O-R⁹-C(O)OR¹⁰, -R⁸-O-R⁹-C(O)N(R⁶)R⁷, -S(O)_pR⁶ (where p is 0, 1 or 2), -S(O)_tN(R⁶)R⁷ (where t is 1 or 2), -R⁸-N(R⁶)R⁷, -R⁸-N(R⁶)C(O)R¹⁰, -R⁸-N(R⁶)C(O)OR¹⁰ and -R⁸-CN;

15 R⁶ and R⁷ are each independently selected from the group consisting of hydrogen, alkyl, haloalkyl, hydroxyalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, -R⁹-OR¹⁰, -R⁹-CN, -R⁹-NO₂, -R⁹-N(R¹⁰)₂, -R⁹-C(O)OR¹⁰ and -R⁹-C(O)N(R¹⁰)₂;

optionally, R⁶ and R⁷, together with the nitrogen to which they are attached, form an optionally substituted *N*-heteroaryl or an optionally substituted *N*-heterocyclyl;

25 each R⁸ is independently selected from the group consisting of a direct bond, an optionally substituted straight or branched alkylene chain, and an optionally substituted straight or branched alkenylene chain;

each R⁹ is independently selected from the group consisting of an optionally substituted straight or branched alkylene chain, or an optionally substituted straight or branched alkenylene chain; and

30 each R¹⁰ is independently selected from the group consisting of hydrogen, alkyl, haloalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heteroaryl, and optionally substituted heteroarylalkyl.

35 Another embodiment of the compounds of formula (Ia) are compounds of formula

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(Ia) wherein:

A is -C(O)-;

R¹ is phenyl substituted with one or more substituents selected from the group consisting of halo, haloalkyl, alkyl, -R⁸-OR¹⁰, -R⁸-O-R⁹-OR¹⁰, and -R⁸-O-R⁹-O-R⁹-OR¹⁰;

5 R², R⁴ and R⁵ are each hydrogen or alkyl;

R³ is cycloalkyl optionally substituted with -R⁸-OR¹⁰;

each R⁸ is independently selected from the group consisting of a direct bond, an optionally substituted straight or branched alkylene chain, and an optionally substituted straight or branched alkenylene chain;

10 each R⁹ is independently selected from the group consisting of an optionally substituted straight or branched alkylene chain, or an optionally substituted straight or branched alkenylene chain; and

each R¹⁰ is independently selected from the group consisting of hydrogen, alkyl, haloalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heteroaryl, and optionally substituted heteroarylalkyl.

Of this embodiment, a specific embodiment is a compound of formula (Ia) selected from the group consisting of:

20 5-amino-1-[2-(bicyclo[2.2.1]hept-5-ene)carbonyl]-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(4-(methoxy)cyclohexyl)carbonyl-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

25 5-amino-1-[2-(bicyclo[2.2.1]heptane)carbonyl]-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole; and

5-amino-1-(bicyclo[2.2.1]heptan-2-yl)carbonyl-3-[4-(4-methylpiperazin-1-yl)phenylamino]-1H-1,2,4-triazole.

Another embodiment of the compounds of formula (Ia) are compounds of formula (Ia) wherein:

30 A is -C(O)-;

R¹ is phenyl substituted with one or more substituents selected from the group consisting of halo, haloalkyl, alkyl, -R⁸-OR¹⁰, -R⁸-O-R⁹-OR¹⁰, and -R⁸-O-R⁹-O-R⁹-OR¹⁰;

R², R⁴ and R⁵ are each hydrogen or alkyl;

35 R³ is phenyl substituted with one or more substituents selected from the group consisting of alkyl, halo, haloalkyl, nitro, cycloalkyl, cycloalkylalkyl, optionally substituted

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aryl, optionally substituted heteroaryl, optionally substituted heterocyclyl,
 $-R^8-OR^{10}$, $-R^8-C(O)OR^{10}$, $-R^8-OC(O)R^{10}$, $-R^8-O-R^9-C(O)OR^{10}$,
 $-R^8-O-R^9-C(O)N(R^6)R^7$, $-S(O)_pR^6$ (where p is 0, 1 or 2), $-S(O)_tN(R^6)R^7$ (where t is
 1 or 2), $-R^8-N(R^6)R^7$, $-R^8-N(R^6)C(O)R^{10}$, $-R^8-N(R^6)C(O)OR^{10}$ and $-R^8-CN$;

- 5 R^6 and R^7 are each independently selected from the group consisting of hydrogen, alkyl, haloalkyl, hydroxyalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, $-R^9-OR^{10}$, $-R^9-CN$,
 10 $-R^9-NO_2$, $-R^9-N(R^{10})_2$, $-R^9-C(O)OR^{10}$ and $-R^9-C(O)N(R^{10})_2$;
 optionally, R^6 and R^7 , together with the nitrogen to which they are attached, form an optionally substituted *N*-heteroaryl or an optionally substituted *N*-heterocyclyl;
 each R^8 is independently selected from the group consisting of a direct bond, an optionally substituted straight or branched alkylene chain, and an optionally substituted straight or branched alkenylene chain;
 15 each R^9 is independently selected from the group consisting of an optionally substituted straight or branched alkylene chain, or an optionally substituted straight or branched alkenylene chain; and
 each R^{10} is independently selected from the group consisting of hydrogen, alkyl,
 20 haloalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heteroaryl, and optionally substituted heteroarylalkyl.

Another embodiment of the compounds of formula (Ia) are compounds of formula

25 (Ia) wherein:

A is $-C(O)-$;

R^1 is phenyl substituted with one or more substituents selected from the group consisting of halo, haloalkyl, alkyl, $-R^8-OR^{10}$, $-R^8-O-R^9-OR^{10}$, and $-R^8-O-R^9-O-R^9-OR^{10}$;

R^2 , R^4 and R^5 are each hydrogen or alkyl;

- 30 R^3 is phenyl substituted with one or more substituents selected from the group consisting of alkyl, halo, haloalkyl, nitro, $-R^8-OR^{10}$, $-R^8-C(O)OR^{10}$, $-R^8-OC(O)R^{10}$, $-R^8-O-R^9-C(O)OR^{10}$, $-R^8-O-R^9-C(O)N(R^6)R^7$, $-S(O)_pR^6$ (where p is 0, 1 or 2), $-S(O)_tN(R^6)R^7$ (where t is 1 or 2), $-R^8-N(R^6)R^7$, $-R^8-N(R^6)C(O)R^{10}$, $-R^8-N(R^6)C(O)OR^{10}$ and $-R^8-CN$;

- 35 R^6 and R^7 are each independently selected from the group consisting of hydrogen, alkyl,

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haloalkyl, hydroxyalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted heterocyclyl, optionally substituted heterocyclalkyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, -R⁹-OR¹⁰, -R⁹-CN, -R⁹-NO₂, -R⁹-N(R¹⁰)₂, -R⁹-C(O)OR¹⁰ and -R⁹-C(O)N(R¹⁰)₂;

optionally, R⁶ and R⁷, together with the nitrogen to which they are attached, form an optionally substituted *N*-heteroaryl or an optionally substituted *N*-heterocyclyl; each R⁸ is independently selected from the group consisting of a direct bond, an optionally substituted straight or branched alkylene chain, and an optionally substituted straight or branched alkenylene chain;

each R⁹ is independently selected from the group consisting of an optionally substituted straight or branched alkylene chain, or an optionally substituted straight or branched alkenylene chain; and

each R¹⁰ is independently selected from the group consisting of hydrogen, alkyl, haloalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted heterocyclyl, optionally substituted heterocyclalkyl, optionally substituted heteroaryl, and optionally substituted heteroarylalkyl.

Another embodiment of the compounds of formula (Ia) are compounds of formula

(Ia) wherein:

A is -C(O)-;

R¹ is phenyl substituted with -R⁸-OR¹⁰ and optionally substituted with halo or alkoxy,

where R⁸ is a direct bond and R¹⁰ is selected from the group consisting of 2-

(pyrrolidin-1-yl)ethyl, 2-(piperidin-1-yl)ethyl, 2-(morpholin-4-yl)ethyl, 2-(1,3-

dioxolan-2-yl)ethyl, 2-(thiomorpholin-4-yl)ethyl, 3-(pyrrolidin-1-yl)propyl, 2-

(azepan-1-yl)ethyl, 2-(isoindolin-1-yl)ethyl, 2-(imidazol-1-yl)ethyl, 2-(pyrrolidin-2-

on-1-yl)ethyl, and 2-(3-fluoropyrrolidin-1-yl)ethyl;

R², R⁴ and R⁵ are each hydrogen or alkyl; and

R³ is phenyl substituted with one or more substituents selected from the group consisting

of alkyl, halo, haloalkyl, nitro, -R⁸-OR¹⁰, -R⁸-C(O)OR¹⁰, -R⁸-OC(O)R¹⁰,

-R⁸-O-R⁹-C(O)OR¹⁰, -R⁸-O-R⁹-C(O)N(R⁶)R⁷, -S(O)_pR⁶ (where p is 0, 1 or 2),

-S(O)_tN(R⁶)R⁷ (where t is 1 or 2), -R⁸-N(R⁶)R⁷, -R⁸-N(R⁶)C(O)R¹⁰,

-R⁸-N(R⁶)C(O)OR¹⁰ and -R⁸-CN, where:

R⁶ and R⁷ are each independently selected from the group consisting of

hydrogen, alkyl, haloalkyl, hydroxyalkyl, optionally substituted aryl,

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optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, $-R^9-OR^{10}$, $-R^9-CN$, $-R^9-NO_2$, $-R^9-N(R^{10})_2$,
 5 $-R^9-C(O)OR^{10}$ and $-R^9-C(O)N(R^{10})_2$;

optionally, R^6 and R^7 , together with the nitrogen to which they are attached, form an optionally substituted *N*-heteroaryl or an optionally substituted *N*-heterocyclyl;

each R^8 is independently selected from the group consisting of a direct bond, an
 10 optionally substituted straight or branched alkylene chain, and an optionally substituted straight or branched alkenylene chain;

each R^9 is independently selected from the group consisting of an optionally substituted straight or branched alkylene chain, or an optionally substituted straight or branched alkenylene chain; and

15 each R^{10} is independently selected from the group consisting of hydrogen, alkyl, haloalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heteroaryl, and optionally substituted
 20 heteroarylalkyl.

Of this embodiment, a specific embodiment is a compound of formula (Ia) selected from the group consisting of:

5-amino-1-(3-(*iso*-propoxy)phenyl)carbonyl-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-
 1H-1,2,4-triazole;

25 5-amino-1-(3-(*iso*-propoxy)phenyl)carbonyl-3-[4-[2-(morpholin-4-yl)ethoxy]phenylamino]-
 1H-1,2,4-triazole;

5-amino-1-(3-(methyl)phenyl)carbonyl-3-[3-[2-(morpholin-4-yl)ethoxy]phenylamino]-1H-
 1,2,4-triazole;

5-amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-3-[3-[2-(morpholin-4-yl)ethoxy]phenylamino]-
 30 1H-1,2,4-triazole;

5-amino-3-[3-[2-(1,3-dioxolan-2-yl)ethoxy]phenylamino]-1-(4-(*iso*-
 propoxy)phenyl)carbonyl-1H-1,2,4-triazole;

5-amino-3-[4-[2-(1,3-dioxolan-2-yl)ethoxy]phenylamino]-1-(4-(*iso*-
 propoxy)phenyl)carbonyl-1H-1,2,4-triazole;

35 5-amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-3-[4-[2-(morpholin-4-yl)ethoxy]phenylamino]-

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- 1H-1,2,4-triazole;
 5-amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-
 1H-1,2,4-triazole;
 5-amino-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1-(4-(*tert*-butoxy)phenyl)carbonyl-
 5 1H-1,2,4-triazole;
 5-amino-1-(4-(*iso*-propyl)phenyl)carbonyl-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-
 1,2,4-triazole;
 5-amino-1-(4-(methyl)phenyl)carbonyl-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-
 1,2,4-triazole;
 10 5-amino-1-(3-(methyl)phenyl)carbonyl-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-
 1,2,4-triazole;
 5-amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-3-[4-[2-(thiomorpholin-4-
 yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
 5-amino-1-(3-(methyl)phenyl)carbonyl-3-[4-[2-(thiomorpholin-4-yl)ethoxy]phenylamino]-
 15 1H-1,2,4-triazole;
 5-amino-1-(4-(cyclohexyl)phenyl)carbonyl-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-
 1H-1,2,4-triazole;
 5-amino-1-(3-(methoxycarbonyl)phenyl)carbonyl-3-[4-[2-(piperidin-1-
 yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
 20 5-amino-1-(3-(methoxy)phenyl)carbonyl-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-
 1,2,4-triazole;
 5-amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-
 1H-1,2,4-triazole;
 5-amino-1-(3,4-(dimethoxy)phenyl)carbonyl-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-
 25 1H-1,2,4-triazole;
 5-amino-1-(3,5-(dimethoxy)phenyl)carbonyl-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-
 1H-1,2,4-triazole;
 5-amino-1-(3-(dimethylamino)phenyl)carbonyl-3-[4-[2-(piperidin-1-
 yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
 30 5-amino-1-(4-(dimethylamino)phenyl)carbonyl-3-[4-[2-(piperidin-1-
 yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
 5-amino-1-(3-methylphenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-
 1,2,4-triazole;
 5-amino-1-(3,5-(dimethoxy)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-
 35 1H-1,2,4-triazole;

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- 5-amino-1-(4-methylphenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
- 5-amino-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1-(4-(*tert*-butoxy)phenyl)carbonyl-1H-1,2,4-triazole;
- 5 5-amino-1-(3-methoxyphenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
- 5-amino-1-(4-(dimethylamino)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
- 5-amino-1-(3-(dimethylamino)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
- 10 5-amino-1-(3,4-(dimethoxy)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
- 5-amino-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1-(3-(*tert*-butoxy)phenyl)carbonyl-1H-1,2,4-triazole;
- 15 5-amino-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1-(3-(trifluoromethoxy)phenyl)carbonyl-1H-1,2,4-triazole;
- 5-amino-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1-(4-(trifluoromethoxy)phenyl)carbonyl-1H-1,2,4-triazole;
- 5-amino-3-[4-[3-(pyrrolidin-1-yl)propoxy]phenylamino]-1-(4-(*tert*-butoxy)phenyl)carbonyl-1H-1,2,4-triazole;
- 20 5-amino-3-[4-[3-(pyrrolidin-1-yl)propoxy]phenylamino]-1-(3-(*tert*-butoxy)phenyl)carbonyl-1H-1,2,4-triazole;
- 5-amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-3-[4-[3-(pyrrolidin-1-yl)propoxy]phenylamino]-1H-1,2,4-triazole;
- 25 5-amino-1-(4-(dimethylamino)phenyl)carbonyl-3-[4-[3-(pyrrolidin-1-yl)propoxy]phenylamino]-1H-1,2,4-triazole;
- 5-amino-1-(3-(dimethylamino)phenyl)carbonyl-3-[4-[3-(pyrrolidin-1-yl)propoxy]phenylamino]-1H-1,2,4-triazole;
- 5-amino-1-(4-(*tert*-butyl)phenyl)carbonyl-3-[4-[2-(morpholin-4-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
- 30 5-amino-1-(4-(*tert*-butoxy)phenyl)carbonyl-3-[4-[2-(morpholin-4-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
- 5-amino-1-(4-(phenoxy)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
- 35 5-amino-1-(4-(*tert*-butoxycarbonylamino)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-

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- yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
 5-amino-1-(4-(*tert*-butoxy)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenyl][methyl]amino-1H-1,2,4-triazole;
 5-amino-1-[4-((*tert*-butoxycarbonyl)aminomethyl)phenyl]carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
 5-amino-1-(4-(methylamino)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
 5-amino-1-(4-(methylthio)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
 5-amino-1-(2,6-difluorophenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
 5-amino-1-(4-(*tert*-butylcarbonylamino)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
 5-amino-1-(4-(*tert*-butyl)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
 5-amino-1-(4-(*tert*-butoxy)phenyl)carbonyl-3-[3-fluoro-4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
 5-amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-3-[3-fluoro-4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
 5-amino-1-(4-(*tert*-butyl)phenyl)carbonyl-3-[3-methoxy-4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
 5-amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-3-[3-methoxy-4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
 5-amino-1-(4-(*tert*-butoxy)phenyl)carbonyl-3-[3-methoxy-4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
 5-amino-1-(4-(*tert*-butyl)phenyl)carbonyl-3-[4-[2-(azepan-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
 5-amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-3-[4-[2-(azepan-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
 5-amino-1-(4-(*tert*-butoxy)phenyl)carbonyl-3-[4-[2-(azepan-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
 5-amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-3-[4-[2-(isoindolin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
 5-amino-1-(4-(*tert*-butoxy)phenyl)carbonyl-3-[4-[2-(isoindolin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

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5-amino-1-[4-(2-(morpholin-4-yl)ethoxy)phenyl]carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-3-[4-[2-(pyrrolidin-2-on-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5 5-amino-1-(4-(*tert*-butoxy)phenyl)carbonyl-3-[4-[2-(pyrrolidin-2-on-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(4-(*tert*-butoxy)phenyl)carbonyl-3-[4-[2-(imidazol-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

10 5-amino-1-(3-(*tert*-butoxy)phenyl)carbonyl-3-[4-[2-(imidazol-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-3-[4-[2-(imidazol-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(4-(dimethylamino)phenyl)carbonyl-3-[4-[2-(imidazol-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

15 5-amino-1-(3-(dimethylamino)phenyl)carbonyl-3-[4-[2-(imidazol-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(4-(*tert*-butoxy)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

20 5-amino-1-(3-fluoro-4-methoxyphenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(4-(*tert*-butoxy)phenyl)carbonyl-3-[4-[2-((*S*)-3-fluoropyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(4-(dimethylamino)phenyl)carbonyl-3-[4-[2-((*S*)-3-fluoropyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

25 5-amino-1-(3,5-difluoro-4-methoxyphenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole; and

5-amino-3-[3-chloro-4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1-(3,5-dichlorophenyl)carbonyl-1H-1,2,4-triazole.

Another embodiment of the compounds of formula (Ia) are compounds of formula

30 (Ia) wherein:

A is -C(O)-;

R¹ is phenyl substituted with one or more substituents selected from the group consisting of halo, haloalkyl, alkyl, -R⁸-O-R⁹-OR¹⁰, -R⁸-O-R⁹-O-R⁹-OR¹⁰, and -R⁸-OR¹⁰ (where R¹⁰ for -R⁸-OR¹⁰ is hydrogen, alkyl, haloalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally

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substituted cycloalkylalkyl, optionally substituted heterocyclyl, or optionally substituted heteroaryl);

R^2 , R^4 and R^5 are each hydrogen or alkyl;

R^3 is phenyl substituted with one or more substituents selected from the group consisting

5 of alkyl, halo, haloalkyl, nitro, $-R^8-OR^{10}$, $-R^8-C(O)OR^{10}$, $-R^8-OC(O)R^{10}$, $-R^8-O-R^9-C(O)OR^{10}$, $-R^8-O-R^9-C(O)N(R^6)R^7$, $-S(O)_pR^6$ (where p is 0, 1 or 2), $-S(O)_tN(R^6)R^7$ (where t is 1 or 2), $-R^8-N(R^6)R^7$, $-R^8-N(R^6)C(O)R^{10}$, $-R^8-N(R^6)C(O)OR^{10}$ and $-R^8-CN$;

10 R^6 and R^7 are each independently selected from the group consisting of hydrogen, alkyl, haloalkyl, hydroxyalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted heterocyclyl, optionally substituted heterocyclalkyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, $-R^9-OR^{10}$, $-R^9-CN$, $-R^9-NO_2$, $-R^9-N(R^{10})_2$, $-R^9-C(O)OR^{10}$ and $-R^9-C(O)N(R^{10})_2$;

15 optionally, R^6 and R^7 , together with the nitrogen to which they are attached, form an optionally substituted *N*-heteroaryl or an optionally substituted *N*-heterocyclyl;

each R^8 is independently selected from the group consisting of a direct bond, an optionally substituted straight or branched alkylene chain, and an optionally substituted straight or branched alkenylene chain;

20 each R^9 is independently selected from the group consisting of an optionally substituted straight or branched alkylene chain, or an optionally substituted straight or branched alkenylene chain; and

each R^{10} is independently selected from the group consisting of hydrogen, alkyl, haloalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted heterocyclyl, optionally substituted heterocyclalkyl, optionally substituted heteroaryl, and optionally substituted heteroarylalkyl.

Of this embodiment, a specific embodiment is a compound of formula (Ia) selected from the group consisting of:

30 5-amino-3-[3-(benzyloxy)phenylamino]-1-(4-(methyl)phenyl)carbonyl-1H-1,2,4-triazole;
5-amino-3-[3-(hydroxy)phenylamino]-1-(4-(methyl)phenyl)carbonyl-1H-1,2,4-triazole;
5-amino-3-[4-(benzyloxy)phenylamino]-1-(4-methylphenyl)carbonyl-1H-1,2,4-triazole;
5-amino-3-[4-(hydroxy)phenylamino]-1-(4-methylphenyl)carbonyl-1H-1,2,4-triazole;
5-amino-3-[3-(hydroxy)phenylamino]-1-(2-(methyl)phenyl)carbonyl-1H-1,2,4-triazole;
35 5-amino-3-[3-(hydroxy)phenylamino]-1-(3-(methyl)phenyl)carbonyl-1H-1,2,4-triazole;

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- 5-amino-3-[4-(benzyloxy)phenylamino]-1-(4-(*iso*-propoxy)phenyl)carbonyl-1H-1,2,4-triazole;
- 5-amino-3-[3-(benzyloxy)phenylamino]-1-(3-(*iso*-propoxy)phenyl)carbonyl-1H-1,2,4-triazole;
- 5 5-amino-3-[4-(*iso*-propoxy)phenylamino]-1-(4-(*iso*-propoxy)phenyl)carbonyl-1H-1,2,4-triazole;
- 5-amino-3-[3-(hydroxy)phenylamino]-1-(4-(*iso*-propoxy)phenyl)carbonyl-1H-1,2,4-triazole;
- 5-amino-3-[3-(hydroxy)phenylamino]-1-(3-(*iso*-propoxy)phenyl)carbonyl-1H-1,2,4-triazole;
- 10 5-amino-3-[3-(benzyloxy)phenylamino]-1-(4-(*iso*-propoxy)phenyl)carbonyl-1H-1,2,4-triazole;
- 5-amino-3-[3-(cyclopentoxy)phenylamino]-1-(4-(*iso*-propoxy)phenyl)carbonyl-1H-1,2,4-triazole;
- 5-amino-3-[4-(hydroxy)phenylamino]-1-(4-(*iso*-propoxy)phenyl)carbonyl-1H-1,2,4-triazole;
- 15 5-amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-3-[4-(methoxy)phenylamino]-1H-1,2,4-triazole;
- 5-amino-3-[4-(ethoxy)phenylamino]-1-(4-(*iso*-propoxy)phenyl)carbonyl-1H-1,2,4-triazole;
- 5-amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-3-[3-(methoxy)phenylamino]-1H-1,2,4-triazole;
- 20 5-amino-3-[3-(*iso*-propoxy)phenylamino]-1-(4-(*iso*-propoxy)phenyl)carbonyl-1H-1,2,4-triazole;
- 5-amino-3-[4-(fluoro)phenylamino]-1-(4-(methyl)phenyl)carbonyl-1H-1,2,4-triazole;
- 5-amino-3-[3-(fluoro)phenylamino]-1-(4-(methyl)phenyl)carbonyl-1H-1,2,4-triazole;
- 25 5-amino-3-[3-(ethoxy)phenylamino]-1-(4-(*iso*-propoxy)phenyl)carbonyl-1H-1,2,4-triazole;
- 5-amino-3-[2-(fluoro)phenylamino]-1-(4-(methyl)phenyl)carbonyl-1H-1,2,4-triazole;
- 5-amino-3-[4-(methyl)phenylamino]-1-(4-(methyl)phenyl)carbonyl-1H-1,2,4-triazole;
- 5-amino-3-[4-(methoxy)phenylamino]-1-(4-(methyl)phenyl)carbonyl-1H-1,2,4-triazole;
- 5-amino-3-[3-(methyl)phenylamino]-1-(4-(methyl)phenyl)carbonyl-1H-1,2,4-triazole;
- 30 5-amino-3-[3-(methoxy)phenylamino]-1-(4-(methyl)phenyl)carbonyl-1H-1,2,4-triazole;
- 5-amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-3-[3-(2,2,2-trifluoroethoxy)phenylamino]-1H-1,2,4-triazole;
- 5-amino-3-[2-(methoxy)phenylamino]-1-(4-(methyl)phenyl)carbonyl-1H-1,2,4-triazole;
- 5-amino-3-[2-(methyl)phenylamino]-1-(4-(methyl)phenyl)carbonyl-1H-1,2,4-triazole;
- 35 5-amino-3-[-[2-(hydroxyl)ethoxy]phenylamino]-1-(3-(methyl)phenyl)carbonyl-1H-1,2,4-

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triazole;

5-amino-3-[4-(cyclopentoxy)phenylamino]-1-(4-(*iso*-propoxy)phenyl)carbonyl-1H-1,2,4-triazole;

5-amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-3-[4-(2,2,2-trifluoroethoxy)phenylamino]-1H-1,2,4-triazole;

5-amino-3-[2-(hydroxyl)phenylamino]-1-(4-methylphenyl)carbonyl-1H-1,2,4-triazole;

5-amino-1-(3-methylphenyl)carbonyl-3-[3-[(2-methoxyethoxy)methoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-3-(3-methoxymethoxy)phenylamino-1-(3-methylphenyl)carbonyl-1H-1,2,4-triazole;

5-amino-3-(4-chlorophenyl)amino-1-(4-chlorophenyl)carbonyl-1H-1,2,4-triazole;

5-amino-3-(4-bromophenyl)amino-1-(4-chlorophenyl)carbonyl-1H-1,2,4-triazole;

5-amino-3-[4-(*iso*-propoxy)phenylamino]-1-(4-(methyl)phenyl)carbonyl-1H-1,2,4-triazole;

5-amino-3-[4-(*iso*-propoxy)phenylamino]-1-(3-(nitro)phenyl)carbonyl-1H-1,2,4-triazole;

5-amino-1-(3-(hydroxy)phenyl)carbonyl-3-[4-(*iso*-propoxy)phenylamino]-1H-1,2,4-triazole;

5-amino-1-(3-(chloro)phenyl)carbonyl-3-[4-(*iso*-propoxy)phenylamino]-1H-1,2,4-triazole; and

5-amino-3-[4-(*iso*-propoxy)phenylamino]-1-[4-[2-(piperidin-1-yl)ethoxy]phenyl)carbonyl-1H-1,2,4-triazole.

Another embodiment of the compounds of formula (Ia) are compounds of formula (Ia) wherein:

A is -C(O)-;

R¹ is phenyl substituted with one or more substituents selected from the group consisting of halo, haloalkyl, alkyl, -R⁸-OR¹⁰, -R⁸-O-R⁹-OR¹⁰, and -R⁸-O-R⁹-O-R⁹-OR¹⁰;

R², R⁴ and R⁵ are each hydrogen or alkyl;

R³ is phenyl substituted with one or more substituents selected from the group consisting of cycloalkyl, cycloalkylalkyl, optionally substituted aryl, optionally substituted heteroaryl, and optionally substituted heterocyclyl;

each R⁸ is independently selected from the group consisting of a direct bond, an optionally substituted straight or branched alkylene chain, and an optionally substituted straight or branched alkenylene chain;

each R⁹ is independently selected from the group consisting of an optionally substituted straight or branched alkylene chain, or an optionally substituted straight or branched alkenylene chain; and

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each R¹⁰ is independently selected from the group consisting of hydrogen, alkyl, haloalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heteroaryl, and optionally substituted heteroarylalkyl.

Another embodiment of the compounds of formula (Ia) are compounds of formula (Ia) wherein:

A is -C(O)-;

R¹ is phenyl substituted with -R⁸-OR¹⁰ and optionally substituted with halo, alkyl or alkoxy, where R⁸ is a direct bond and R¹⁰ is selected from the group consisting of 2-(pyrrolidin-1-yl)ethyl, 2-(piperidin-1-yl)ethyl, 2-(morpholin-4-yl)ethyl, 2-(1,3-dioxolan-2-yl)ethyl, 2-(thiomorpholin-4-yl)ethyl, 3-(pyrrolidin-1-yl)propyl, 2-(azepan-1-yl)ethyl, 2-(isoindolin-1-yl)ethyl, 2-(imidazol-1-yl)ethyl, 2-(pyrrolidin-2-on-1-yl)ethyl, and 2-(3-fluoropyrrolidin-1-yl)ethyl;

R², R⁴ and R⁵ are each hydrogen or alkyl; and

R³ is phenyl substituted with one or more substituents selected from the group consisting of cycloalkyl, cycloalkylalkyl, optionally substituted aryl, optionally substituted heteroaryl, and optionally substituted heterocyclyl.

Of this embodiment, a specific embodiment is a compound of formula (Ia)

selected from the group consisting of:

5-amino-3-[4-[2-(pyrrolidin-1-yl)ethoxy]-3-fluorophenyl]amino-1-[4-(morpholin-4-yl)phenyl]carbonyl-1H-1,2,4-triazole

5-amino-1-(4-(imidazol-1-yl)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(4-(phenyl)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(4-(1,2,3-thiadiazol-4-yl)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(4-(pyrrol-1-yl)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(4-(1,2,3-thiadiazol-4-yl)phenyl)carbonyl-3-[3-fluoro-4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(3-(thiazol-2-yl)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(4-(thien-2-yl)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-

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- 1,2,4-triazole;
 5-amino-1-(3-(thien-2-yl)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-
 1,2,4-triazole;
 5-amino-1-(4-(thien-3-yl)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-
 5 1,2,4-triazole;
 5-amino-1-(4-(1,2,3-thiadiazol-4-yl)phenyl)carbonyl-3-[3-methoxy-4-[2-(pyrrolidin-1-
 yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
 5-amino-1-(4-(1,2,3-thiadiazol-4-yl)phenyl)carbonyl-3-[4-[2-(azepan-1-
 yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
 10 5-amino-1-(4-(morpholin-4-yl)phenyl)carbonyl-3-[4-[2-(isoindolin-1-
 yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
 5-amino-1-(3-(morpholin-4-yl)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-
 yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
 5-amino-1-(4-(1,2,3-thiadiazol-4-yl)phenyl)carbonyl-3-[4-[2-(pyrrolidin-2-on-1-
 15 yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
 5-amino-1-(4-(morpholin-4-yl)phenyl)carbonyl-3-[4-[2-(pyrrolidin-2-on-1-
 yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
 5-amino-1-(3-(morpholin-4-yl)phenyl)carbonyl-3-[4-[2-(pyrrolidin-2-on-1-
 yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
 20 5-amino-1-(4-(morpholin-4-yl)phenyl)carbonyl-3-[3-methoxy-4-[2-(pyrrolidin-1-
 yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
 5-amino-1-(3-(morpholin-4-yl)phenyl)carbonyl-3-[3-methoxy-4-[2-(pyrrolidin-1-
 yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
 5-amino-1-(4-(morpholin-4-yl)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-
 25 yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
 5-amino-1-(4-(4-methylpiperazin-1-yl)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-
 yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
 5-amino-1-(4-(1,1-dioxo-thiomorpholin-4-yl)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-
 yl)ethoxy]phenylamino]-1H-1,2,4-triazole; and
 30 5-amino-1-(4-(piperidin-1-yl)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-
 1H-1,2,4-triazole.

Another embodiment of the compounds of formula (Ia) are compounds of formula (Ia) wherein:

A is -C(O)-;

35 R¹ is phenyl substituted with optionally substituted heteroaryl or optionally substituted

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heterocyclyl;

R^2 , R^4 and R^5 are each hydrogen;

R^3 is phenyl substituted with one or more substituents selected from the group consisting of alkyl, halo, haloalkyl, nitro, cycloalkyl, cycloalkylalkyl, $-R^8-OR^{10}$, $-R^8-C(O)OR^{10}$, $-R^8-OC(O)R^{10}$, $-R^8-O-R^9-C(O)OR^{10}$, $-R^8-O-R^9-C(O)N(R^6)R^7$, $-S(O)_pR^6$ (where p is 0, 1 or 2), $-S(O)_tN(R^6)R^7$ (where t is 1 or 2), $-R^8-N(R^6)R^7$, $-R^8-N(R^6)C(O)R^{10}$, and $-R^8-CN$;

R^6 and R^7 are each independently selected from the group consisting of hydrogen, alkyl, haloalkyl, hydroxyalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, $-R^9-OR^{10}$, $-R^9-CN$, $-R^9-NO_2$, $-R^9-N(R^{10})_2$, $-R^9-C(O)OR^{10}$ and $-R^9-C(O)N(R^{10})_2$;

each R^8 is independently selected from the group consisting of a direct bond, an optionally substituted straight or branched alkylene chain, and an optionally substituted straight or branched alkenylene chain;

each R^9 is independently selected from the group consisting of an optionally substituted straight or branched alkylene chain, or an optionally substituted straight or branched alkenylene chain; and

each R^{10} is independently selected from the group consisting of hydrogen, alkyl, haloalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heteroaryl, and optionally substituted heteroarylalkyl.

Another embodiment of the compounds of formula (Ia) are compounds of formula (Ia) wherein:

A is $-C(O)-$;

R^1 is phenyl substituted with optionally substituted heteroaryl or optionally substituted heterocyclyl;

R^2 , R^4 and R^5 are each hydrogen;

R^3 is phenyl substituted with one or more substituents selected from the group consisting of alkyl, halo, haloalkyl, cycloalkyl, and cycloalkylalkyl.

Of this embodiment, a specific embodiment is a compound of formula (Ia) selected from the group consisting of:

5-amino-1-(4-(*iso*-propyl)phenyl)carbonyl-3-(4-(morpholin-4-yl)phenylamino]-1H-1,2,4-

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triazole;

5-amino-1-(4-(methyl)phenyl)carbonyl-3-(4-(morpholin-4-yl)phenylamino)-1H-1,2,4-triazole;

5-amino-1-(3-(chloro)phenyl)carbonyl-3-(4-(morpholin-4-yl)phenylamino)-1H-1,2,4-triazole;

5-amino-1-(4-(*tert*-butyl)phenyl)carbonyl-3-[3-(1,3-oxazol-5-yl)phenylamino]-1H-1,2,4-triazole;

5-amino-1-(4-(*tert*-butyl)phenyl)carbonyl-3-[4-(pyrrolidin-1-yl)phenylamino]-1H-1,2,4-triazole; and

5-amino-1-(4-(methyl)phenyl)carbonyl-3-[4-(pyrrolidin-1-yl)phenylamino]-1H-1,2,4-triazole.

Another embodiment of the compounds of formula (Ia) are compounds of formula (Ia) wherein:

A is -C(O)-;

R¹ is phenyl substituted with optionally substituted heteroaryl or optionally substituted heterocyclyl;

R², R⁴ and R⁵ are each hydrogen;

R³ is phenyl substituted with one or more substituents selected from the group consisting of -R⁸-OR¹⁰, -R⁸-C(O)OR¹⁰, -R⁸-OC(O)R¹⁰, -R⁸-O-R⁹-C(O)OR¹⁰, -R⁸-O-R⁹-C(O)N(R⁶)R⁷, -S(O)_pR⁶ (where p is 0, 1 or 2), and -S(O)_tN(R⁶)R⁷ (where t is 1 or 2);

R⁶ and R⁷ are each independently selected from the group consisting of hydrogen, alkyl, haloalkyl, hydroxyalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, -R⁹-OR¹⁰, -R⁹-CN, -R⁹-NO₂, -R⁹-N(R¹⁰)₂, -R⁹-C(O)OR¹⁰ and -R⁹-C(O)N(R¹⁰)₂;

each R⁸ is independently selected from the group consisting of a direct bond, an optionally substituted straight or branched alkylene chain, and an optionally substituted straight or branched alkenylene chain;

each R⁹ is independently selected from the group consisting of an optionally substituted straight or branched alkylene chain, or an optionally substituted straight or branched alkenylene chain; and

each R¹⁰ is independently selected from the group consisting of hydrogen, alkyl, haloalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally

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substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heteroaryl, and optionally substituted heteroarylalkyl.

Of this embodiment, a specific embodiment is a compound of formula (Ia)

5 selected from the group consisting of:

5-amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-3-[3-(piperidin-1-yl)phenylamino]-1H-1,2,4-triazole;

5-amino-1-(3-(*iso*-propoxy)phenyl)carbonyl-3-[3-(1,3-oxazol-5-yl)phenylamino]-1H-1,2,4-triazole;

10 5-amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-3-(4-(morpholin-4-yl)phenylamino)-1H-1,2,4-triazole;

5-amino-3-(4-(morpholin-4-yl)phenylamino)-1-(4-(*tert*-butoxy)phenyl)carbonyl-1H-1,2,4-triazole;

15 5-amino-1-(3-(hydroxy)phenyl)carbonyl-3-(4-(morpholin-4-yl)phenylamino)-1H-1,2,4-triazole;

5-amino-1-(4-(aminosulfonyl)phenyl)carbonyl-3-(4-(morpholin-4-yl)phenylamino)-1H-1,2,4-triazole;

5-amino-1-(3-(methoxy)phenyl)carbonyl-3-(4-(morpholin-4-yl)phenylamino)-1H-1,2,4-triazole;

20 5-amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-3-[4-(piperidin-1-yl)phenylamino]-1H-1,2,4-triazole;

5-amino-1-(4-(*tert*-butoxy)phenyl)carbonyl-3-[3-(1,3-oxazol-5-yl)phenylamino]-1H-1,2,4-triazole;

25 5-amino-1-(4-(*tert*-butoxy)phenyl)carbonyl-3-[4-(pyrrolidin-1-yl)phenylamino]-1H-1,2,4-triazole;

5-amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-3-[4-(pyrrolidin-1-yl)phenylamino]-1H-1,2,4-triazole;

5-amino-1-(4-(*tert*-butoxy)phenyl)carbonyl-3-[4-(4-methylpiperazin-1-yl)phenylamino]-1H-1,2,4-triazole;

30 5-amino-1-(3-(*tert*-butoxy)phenyl)carbonyl-3-[4-(4-methylpiperazin-1-yl)phenylamino]-1H-1,2,4-triazole; and

5-amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-3-[4-(4-methylpiperazin-1-yl)phenylamino]-1H-1,2,4-triazole.

Another embodiment of the compounds of formula (Ia) are compounds of formula

35 (Ia) wherein:

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A is -C(O)-;

R¹ is phenyl substituted with optionally substituted heteroaryl or optionally substituted heterocyclyl;

R², R⁴ and R⁵ are each hydrogen;

5 R³ is phenyl substituted with one or more substituents selected from the group consisting of alkyl, halo, haloalkyl, nitro, cycloalkyl, cycloalkylalkyl, -R⁸-OR¹⁰, -R⁸-C(O)OR¹⁰, -R⁸-OC(O)R¹⁰, -R⁸-O-R⁹-C(O)OR¹⁰, -R⁸-O-R⁹-C(O)N(R⁶)R⁷, -S(O)_pR⁶ (where p is 0, 1 or 2), -S(O)_tN(R⁶)R⁷ (where t is 1 or 2), -R⁸-N(R⁶)R⁷, -R⁸-N(R⁶)C(O)R¹⁰, and -R⁸-CN;

10 R⁶ and R⁷ are each independently selected from the group consisting of hydrogen, alkyl, haloalkyl, hydroxyalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, -R⁹-OR¹⁰, -R⁹-CN,
15 -R⁹-NO₂, -R⁹-N(R¹⁰)₂, -R⁹-C(O)OR¹⁰ and -R⁹-C(O)N(R¹⁰)₂;

each R⁸ is independently selected from the group consisting of a direct bond, an optionally substituted straight or branched alkylene chain, and an optionally substituted straight or branched alkenylene chain;

each R⁹ is independently selected from the group consisting of an optionally substituted
20 straight or branched alkylene chain, or an optionally substituted straight or branched alkenylene chain; and

each R¹⁰ is independently selected from the group consisting of hydrogen, alkyl, haloalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted
25 heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heteroaryl, and optionally substituted heteroarylalkyl.

Of this embodiment, a specific embodiment is a compound of formula (Ia) selected from the group consisting of:

5-amino-3-(4-(morpholin-4-yl)phenylamino)-1-(3-(nitro)phenyl)carbonyl-1H-1,2,4-triazole;

30 5-amino-1-(4-(dimethylamino)phenyl)carbonyl-3-[4-(pyrrolidin-1-yl)phenylamino]-1H-1,2,4-triazole;

5-amino-1-(4-(dimethylamino)phenyl)carbonyl-3-[4-(4-methylpiperazin-1-yl)phenylamino]-1H-1,2,4-triazole; and

35 5-amino-1-(3-(dimethylamino)phenyl)carbonyl-3-[4-(4-methylpiperazin-1-yl)phenylamino]-1H-1,2,4-triazole.

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Another embodiment of the compounds of formula (Ia) are compounds of formula (Ia) wherein:

A is -C(O)-;

5 R^1 is phenyl substituted with $-R^8-O-R^9-CN$, $-R^8-O-R^9-C(O)OR^{10}$, $-R^8-O-R^9-C(O)N(R^6)R^7$,
 $-R^8-O-R^9-S(O)_pR^6$ (where p is 0, 1 or 2), $-R^8-O-R^9-N(R^6)R^7$,
 $-R^8-O-R^9-C(NR^{11})N(R^{11})H$, and $-R^8-N(R^6)C(O)R^{10}$;

R^2 , R^4 and R^5 are each hydrogen;

10 R^3 is phenyl substituted with one or more substituents selected from the group consisting
of alkyl, halo, haloalkyl, nitro, cycloalkyl, cycloalkylalkyl, $-R^8-OR^{10}$, $-R^8-C(O)OR^{10}$,
 $-R^8-OC(O)R^{10}$, $-R^8-O-R^9-C(O)OR^{10}$, $-R^8-O-R^9-C(O)N(R^6)R^7$, $-S(O)_pR^6$ (where p is
0, 1 or 2), $-S(O)_tN(R^6)R^7$ (where t is 1 or 2), $-R^8-N(R^6)R^7$, $-R^8-N(R^6)C(O)R^{10}$, and
 $-R^8-CN$;

15 R^6 and R^7 are each independently selected from the group consisting of hydrogen, alkyl,
haloalkyl, hydroxyalkyl, optionally substituted aryl, optionally substituted aralkyl,
optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally
substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally
substituted heteroaryl, optionally substituted heteroarylalkyl, $-R^9-OR^{10}$, $-R^9-CN$,
 $-R^9-NO_2$, $-R^9-N(R^{10})_2$, $-R^9-C(O)OR^{10}$ and $-R^9-C(O)N(R^{10})_2$;

20 each R^8 is independently selected from the group consisting of a direct bond, an
optionally substituted straight or branched alkylene chain, and an optionally
substituted straight or branched alkenylene chain;

each R^9 is independently selected from the group consisting of an optionally substituted
straight or branched alkylene chain, or an optionally substituted straight or
branched alkenylene chain; and

25 each R^{10} is independently selected from the group consisting of hydrogen, alkyl,
haloalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally
substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted
heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted
heteroaryl, and optionally substituted heteroarylalkyl; and

30 each R^{11} is hydrogen, alkyl, cyano, nitro or $-OR^{10}$.

Another embodiment of the compounds of formula (Ia) are compounds of formula (Ia) wherein:

A is -C(O)-;

35 R^1 is phenyl substituted with $-R^8-O-R^9-CN$, $-R^8-O-R^9-C(O)OR^{10}$, $-R^8-O-R^9-C(O)N(R^6)R^7$,
 $-R^8-O-R^9-S(O)_pR^6$ (where p is 0, 1 or 2), $-R^8-O-R^9-N(R^6)R^7$,

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$-R^8-O-R^9-C(NR^{11})N(R^{11})H$, and $-R^8-N(R^6)C(O)R^{10}$;

R^2 , R^4 and R^5 are each hydrogen;

R^3 is phenyl substituted with one or more substituents selected from the group consisting

of nitro, $-R^8-OR^{10}$, $-R^8-C(O)OR^{10}$, $-R^8-OC(O)R^{10}$, $-R^8-O-R^9-C(O)OR^{10}$,

5 $-R^8-O-R^9-C(O)N(R^6)R^7$, $-S(O)_pR^6$ (where p is 0, 1 or 2), $-S(O)_tN(R^6)R^7$ (where t is 1 or 2), $-R^8-N(R^6)R^7$, $-R^8-N(R^6)C(O)R^{10}$, and $-R^8-CN$;

R^6 and R^7 are each independently selected from the group consisting of hydrogen, alkyl,

haloalkyl, hydroxyalkyl, optionally substituted aryl, optionally substituted aralkyl,

optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally

10 substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally

substituted heteroaryl, optionally substituted heteroarylalkyl, $-R^9-OR^{10}$, $-R^9-CN$,

$-R^9-NO_2$, $-R^9-N(R^{10})_2$, $-R^9-C(O)OR^{10}$ and $-R^9-C(O)N(R^{10})_2$;

each R^8 is independently selected from the group consisting of a direct bond, an

optionally substituted straight or branched alkylene chain, and an optionally

15 substituted straight or branched alkenylene chain;

each R^9 is independently selected from the group consisting of an optionally substituted

straight or branched alkylene chain, or an optionally substituted straight or

branched alkenylene chain; and

each R^{10} is independently selected from the group consisting of hydrogen, alkyl,

20 haloalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally

substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted

heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted

heteroaryl, and optionally substituted heteroarylalkyl; and

each R^{11} is hydrogen, alkyl, cyano, nitro or $-OR^{10}$.

25 Of this embodiment, a specific embodiment is a compound of formula (Ia)

selected from the group consisting of:

5-amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-3-[3-

(methoxycarbonylmethoxy)phenylamino]-1H-1,2,4-triazole;

5-amino-3-[4-(cyanomethoxy)phenylamino]-1-(4-(*iso*-propoxy)phenyl)carbonyl-1H-1,2,4-

30 triazole;

5-amino-3-[3-(cyanomethoxy)phenylamino]-1-(4-(*iso*-propoxy)phenyl)carbonyl-1H-1,2,4-

triazole;

5-amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-3-[4-

(methoxycarbonylmethoxy)phenylamino]-1H-1,2,4-triazole;

35 5-amino-3-[4-[2-(dimethylamino)ethoxy]phenylamino]-1-(4-(*tert*-butoxy)phenyl)carbonyl-

Figure 1 is a chemical structure of a compound of formula (Ia) where A is -C(O)-, R¹ is phenyl substituted with -R⁸-O-R⁹-CN, -R⁸-O-R⁹-C(O)OR¹⁰, -R⁸-O-R⁹-C(O)N(R⁶)R⁷, -R⁸-O-R⁹-S(O)_pR⁶ (where p is 0, 1 or 2), -R⁸-O-R⁹-N(R⁶)R⁷, -R⁸-O-R⁹-C(NR¹¹)N(R¹¹)H, and -R⁸-N(R⁶)C(O)R¹⁰; R², R⁴ and R⁵ are each hydrogen; R³ is phenyl substituted with one or more substituents selected from the group consisting of alkyl, halo, haloalkyl, cycloalkyl, and cycloalkylalkyl; R⁶ and R⁷ are each independently selected from the group consisting of hydrogen, alkyl, haloalkyl, hydroxyalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, -R⁹-OR¹⁰, -R⁹-CN, -R⁹-NO₂, -R⁹-N(R¹⁰)₂, -R⁹-C(O)OR¹⁰ and -R⁹-C(O)N(R¹⁰)₂; each R⁸ is independently selected from the group consisting of a direct bond, an optionally substituted straight or branched alkylene chain, and an optionally substituted straight or branched alkenylene chain; each R⁹ is independently selected from the group consisting of an optionally substituted straight or branched alkylene chain, or an optionally substituted straight or branched alkenylene chain; and each R¹⁰ is independently selected from the group consisting of hydrogen, alkyl, haloalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted

1H-1,2,4-triazole;

5-amino-3-[4-[2-(dimethylamino)propoxy]phenylamino]-1-(4-(*iso*-propoxy)phenyl)carbonyl-1H-1,2,4-triazole;

5-amino-3-[4-[2-(dimethylamino)ethoxy]phenylamino]-1-(4-(*iso*-propoxy)phenyl)carbonyl-1H-1,2,4-triazole;

5-amino-3-[4-[2-(dimethylamino)ethoxy]phenylamino]-1-(4-(dimethylamino)phenyl)carbonyl-1H-1,2,4-triazole;

5-amino-1-(4-(dimethylamino)phenyl)carbonyl-3-[4-[2-(dimethylamino)propoxy]phenylamino]-1H-1,2,4-triazole; and

5-amino-3-[4-[2-(dimethylamino)propoxy]phenylamino]-1-(4-(*tert*-butoxy)phenyl)carbonyl-1H-1,2,4-triazole.

Another embodiment of the compounds of formula (Ia) are compounds of formula (Ia) wherein:

A is -C(O)-;

R¹ is phenyl substituted with -R⁸-O-R⁹-CN, -R⁸-O-R⁹-C(O)OR¹⁰, -R⁸-O-R⁹-C(O)N(R⁶)R⁷, -R⁸-O-R⁹-S(O)_pR⁶ (where p is 0, 1 or 2), -R⁸-O-R⁹-N(R⁶)R⁷, -R⁸-O-R⁹-C(NR¹¹)N(R¹¹)H, and -R⁸-N(R⁶)C(O)R¹⁰;

R², R⁴ and R⁵ are each hydrogen;

R³ is phenyl substituted with one or more substituents selected from the group consisting of alkyl, halo, haloalkyl, cycloalkyl, and cycloalkylalkyl;

R⁶ and R⁷ are each independently selected from the group consisting of hydrogen, alkyl, haloalkyl, hydroxyalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, -R⁹-OR¹⁰, -R⁹-CN, -R⁹-NO₂, -R⁹-N(R¹⁰)₂, -R⁹-C(O)OR¹⁰ and -R⁹-C(O)N(R¹⁰)₂;

each R⁸ is independently selected from the group consisting of a direct bond, an optionally substituted straight or branched alkylene chain, and an optionally substituted straight or branched alkenylene chain;

each R⁹ is independently selected from the group consisting of an optionally substituted straight or branched alkylene chain, or an optionally substituted straight or branched alkenylene chain; and

each R¹⁰ is independently selected from the group consisting of hydrogen, alkyl, haloalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted

heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heteroaryl, and optionally substituted heteroarylalkyl; and each R¹¹ is hydrogen, alkyl, cyano, nitro or -OR¹⁰.

Of this embodiment, a specific embodiment is a compound of formula (Ia)

5 selected from the group consisting of:

5-amino-3-[3-(cyanomethoxy)phenylamino]-1-(4-(methyl)phenyl)carbonyl-1H-1,2,4-triazole;

5-amino-3-[3-(cyanomethoxy)phenylamino]-1-(2-(methyl)phenyl)carbonyl-1H-1,2,4-triazole;

10 5-amino-3-[3-(cyanomethoxy)phenylamino]-1-(3-(methyl)phenyl)carbonyl-1H-1,2,4-triazole;

5-amino-3-[3-(methylaminocarbonylmethoxy)phenylamino]-1-(3-(methyl)phenyl)carbonyl-1H-1,2,4-triazole;

15 5-amino-3-[3-(methoxycarbonylmethoxy)phenylamino]-1-(3-(methyl)phenyl)carbonyl-1H-1,2,4-triazole;

5-amino-3-[3-(N-(2,2-dimethyl-1,3-dioxolan-4-yl)methyl)aminocarbonylmethoxy)phenylamino]-1-(3-(methyl)phenyl)carbonyl-1H-1,2,4-triazole;

20 5-amino-3-[3-(N-(2,3-dihydroxypropyl)amino)carbonylmethoxy]-phenylamino-1-(3-(methyl)phenyl)carbonyl-1H-1,2,4-triazole;

5-amino-3-[3-[cyclohexylaminocarbonylmethoxy]phenylamino]-1-(3-(methyl)phenyl)carbonyl-1H-1,2,4-triazole;

5-amino-1-(3-methylphenyl)carbonyl-3-[(3-*tert*-butoxycarbonylmethoxy)phenyl]amino-1H-1,2,4-triazole;

25 5-amino-1-(3-methylphenyl)carbonyl-3-[3-[2-(tetrahydropyran-2-yl)ethoxyaminocarbonyl]methoxy]phenylamino-1H-1,2,4-triazole;

5-amino-3-(3-hydroxycarbonylmethoxy)phenylamino-1-(3-methylphenyl)carbonyl-1H-1,2,4-triazole;

30 5-amino-3-[3-((2-hydroxyethyl)aminocarbonylmethoxy)phenyl]amino-1-(3-methylphenyl)carbonyl-1H-1,2,4-triazole;

5-amino-1-(3-methylphenyl)carbonyl-3-[3-[2-(4-morpholinyl)ethylaminocarbonylmethoxy]phenyl]amino-1H-1,2,4-triazole;

5-amino-1-(3-methylphenyl)carbonyl-3-[3-(N-*tert*-butoxycarbonyl)piperazin-4-ylcarbonylmethoxy]phenyl]amino-1H-1,2,4-triazole;

35 5-amino-1-(3-methylphenyl)carbonyl-3-[3-(piperazin-4-ylcarbonylmethoxy)phenyl]amino-

1H-1,2,4-triazole;

5-amino-1-(3-methylphenyl)carbonyl-3-[3-(methylsulfonylmethoxy)phenyl]amino-1H-1,2,4-triazole;

5-amino-3-[4-[2-(dimethylamino)ethoxy]phenylamino]-1-(4-(methyl)phenyl)carbonyl-1H-1,2,4-triazole; and

5-amino-3-[4-[3-(dimethylamino)propoxy]phenylamino]-1-(4-(methyl)phenyl)carbonyl-1H-1,2,4-triazole.

Another embodiment of the compounds of formula (Ia) are compounds of formula (Ia) wherein:

A is -C(O)-;

R¹ is aryl substituted with one or more substituents selected from the group consisting of halo, haloalkyl, alkyl, optionally substituted heteroaryl, optionally substituted heterocyclyl, -R⁸-OR¹⁰, -R⁸-O-R⁹-OR¹⁰, -R⁸-O-R⁹-O-R⁹-OR¹⁰, -R⁸-O-R⁹-CN, -R⁸-O-R⁹-C(O)OR¹⁰, -R⁸-O-R⁹-C(O)N(R⁶)R⁷, -R⁸-O-R⁹-S(O)_pR⁶ (where p is 0, 1 or 2), -R⁸-O-R⁹-N(R⁶)R⁷, -R⁸-O-R⁹-C(NR¹¹)N(R¹¹)H, and -R⁸-N(R⁶)C(O)R¹⁰;

R², R⁴ and R⁵ are each hydrogen;

R³ is heteroaryl optionally substituted with one or more substituents selected from the group consisting of alkyl, oxo, and -R⁸-OR¹⁰;

R⁶ and R⁷ are each independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, haloalkyl, haloalkenyl, haloalkynyl, hydroxyalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted aralkenyl, optionally substituted aralkynyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted cycloalkylalkenyl, optionally substituted cycloalkylalkynyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heterocyclylalkenyl, optionally substituted heterocyclylalkynyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, optionally substituted heteroarylalkenyl, optionally substituted heteroarylalkynyl, -R⁹-OR¹⁰, -R⁹-CN, -R⁹-NO₂, -R⁹-N(R¹⁰)₂, -R⁹-C(O)OR¹⁰ and -R⁹-C(O)N(R¹⁰)₂;

optionally, R⁶ and R⁷, together with the nitrogen to which they are attached, form an optionally substituted N-heteroaryl or an optionally substituted N-heterocyclyl;

each R⁸ is independently selected from the group consisting of a direct bond, an optionally substituted straight or branched alkylene chain, an optionally substituted straight or branched alkenylene chain and an optionally substituted straight or branched alkynylene chain;

each R⁹ is independently selected from the group consisting of an optionally substituted straight or branched alkylene chain, an optionally substituted straight or branched alkenylene chain and an optionally substituted straight or branched alkynylene chain; and

- 5 each R¹⁰ is independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, haloalkyl, haloalkenyl, haloalkynyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted aralkenyl, optionally substituted aralkynyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted cycloalkylalkenyl, optionally substituted cycloalkylalkynyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heterocyclylalkenyl, optionally substituted heterocyclylalkynyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, optionally substituted heteroarylalkenyl, optionally substituted heteroarylalkynyl; and

- 15 each R¹¹ is hydrogen, alkyl, cyano, nitro or -OR¹⁰.

Another embodiment of the compounds of formula (Ia) are compounds of formula (Ia) wherein:

A is -C(O)-;

- 20 R¹ is phenyl substituted with one or more substituents selected from the group consisting of halo, haloalkyl, alkyl, optionally substituted heteroaryl, optionally substituted heterocyclyl, -R⁸-OR¹⁰, -R⁸-O-R⁹-OR¹⁰, -R⁸-O-R⁹-O-R⁹-OR¹⁰, -R⁸-O-R⁹-CN, -R⁸-O-R⁹-C(O)OR¹⁰, -R⁸-O-R⁹-C(O)N(R⁶)R⁷, -R⁸-O-R⁹-S(O)_pR⁶ (where p is 0, 1 or 2), -R⁸-O-R⁹-N(R⁶)R⁷, -R⁸-O-R⁹-C(NR¹¹)N(R¹¹)H, and -R⁸-N(R⁶)C(O)R¹⁰;

R², R⁴ and R⁵ are each hydrogen;

- 25 R³ is heteroaryl optionally substituted with one or more substituents selected from the group consisting of alkyl, oxo, and -R⁸-OR¹⁰;

- R⁶ and R⁷ are each independently selected from the group consisting of hydrogen, alkyl, haloalkyl, hydroxyalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, -R⁹-OR¹⁰, -R⁹-CN, -R⁹-NO₂, -R⁹-N(R¹⁰)₂, -R⁹-C(O)OR¹⁰ and -R⁹-C(O)N(R¹⁰)₂;

- 30 each R⁸ is independently selected from the group consisting of a direct bond, an optionally substituted straight or branched alkylene chain or an optionally substituted straight or branched alkenylene chain;
- 35

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each R^9 is independently selected from the group consisting of an optionally substituted straight or branched alkylene chain or an optionally substituted straight or branched alkenylene chain; and

each R^{10} is independently selected from the group consisting of hydrogen, alkyl, haloalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted heterocyclyl, optionally substituted heterocyclalkyl, optionally substituted heteroaryl, or optionally substituted heteroarylalkyl; and

each R^{11} is hydrogen, alkyl, cyano, nitro or $-OR^{10}$.

Another embodiment of the compounds of formula (Ia) are compounds of formula (Ia) wherein:

A is $-C(O)-$;

R^1 is phenyl substituted with $-R^8-OR^{10}$ and optionally substituted with halo or alkoxy,

where R^8 is a direct bond and R^{10} is selected from the group consisting of 2-(pyrrolidin-1-yl)ethyl, 2-(piperidin-1-yl)ethyl, 2-(morpholin-4-yl)ethyl, 2-(1,3-dioxolan-2-yl)ethyl, 2-(thiomorpholin-4-yl)ethyl, 3-(pyrrolidin-1-yl)propyl, 2-(azepan-1-yl)ethyl, 2-(isoindolin-1-yl)ethyl, 2-(imidazol-1-yl)ethyl, 2-(pyrrolidin-2-on-1-yl)ethyl, and 2-(3-fluoropyrrolidin-1-yl)ethyl;

R^2 , R^4 and R^5 are each hydrogen;

R^3 is heteroaryl optionally substituted with one or more substituents selected from the group consisting of alkyl, oxo, and $-R^8-OR^{10}$;

R^6 and R^7 are each independently selected from the group consisting of hydrogen, alkyl, haloalkyl, hydroxyalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted heterocyclyl, optionally substituted heterocyclalkyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, $-R^9-OR^{10}$, $-R^9-CN$, $-R^9-NO_2$, $-R^9-N(R^{10})_2$, $-R^9-C(O)OR^{10}$ and $-R^9-C(O)N(R^{10})_2$;

each R^8 is independently selected from the group consisting of a direct bond, an optionally substituted straight or branched alkylene chain or an optionally substituted straight or branched alkenylene chain;

each R^9 is independently selected from the group consisting of an optionally substituted straight or branched alkylene chain or an optionally substituted straight or branched alkenylene chain; and

each R^{10} is independently selected from the group consisting of hydrogen, alkyl, haloalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally

substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted heterocyclyl, optionally substituted heterocyclalkyl, optionally substituted heteroaryl, or optionally substituted heteroarylalkyl; and each R¹¹ is hydrogen, alkyl, cyano, nitro or -OR¹⁰.

Of this embodiment, a specific embodiment is a compound of formula (Ia) selected from the group consisting of:

5-amino-1-(3-(*iso*-propoxy)pyridin-5-yl)carbonyl-3-[4-[2-(morpholin-4-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(2,2-dimethyl-2H-benzo[b][1,4]oxazin-3(4H)-on-6-yl)carbonyl-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(1,3-benzodioxol-5-yl)carbonyl-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(1,3-benzodioxol-5-yl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(1,4-benzodioxan-6-yl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(1H-indol-5-yl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(1H-indol-6-yl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(1H-indol-2-yl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(benzimidazol-6-yl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(6-(methyl)pyridin-3-yl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(pyridin-2-yl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(pyridin-4-yl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(1H-indol-6-yl)carbonyl-3-[4-[2-(morpholin-4-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(benzo[d]thiazol-6-yl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(2,3-dihydrobenzofuran-5-yl)carbonyl-3-[4-[2-(pyrrolidin-1-

- yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
- 5-amino-1-(1H-benzo[d][1,2,3]triazol-5-yl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
- 5-amino-1-(3-methylthien-2-yl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
- 5-amino-1-(5-methylthien-2-yl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
- 5-amino-1-(thien-2-yl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
- 5-amino-1-(quinolin-6-yl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
- 5-amino-1-(1H-indol-6-yl)carbonyl-3-[3-fluoro-4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
- 5-amino-1-(1,2,3-thiadiazol-4-yl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
- 5-amino-1-(1H-indol-6-yl)carbonyl-3-[3-methoxy-4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
- 5-amino-1-(1H-indol-6-yl)carbonyl-3-[4-[2-(azepan-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
- 5-amino-1-(1H-indol-6-yl)carbonyl-3-[4-[2-(isoindolin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
- 5-amino-1-(1H-indol-3-yl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
- 5-amino-1-(benzo[b]thiophen-2-yl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
- 5-amino-1-(benzo[b]thiophen-5-yl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
- 5-amino-1-(1H-indol-6-yl)carbonyl-3-[4-[2-(imidazol-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
- 5-amino-1-(benzo[b]thiophen-5-yl)carbonyl-3-[4-[2-(imidazol-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
- 5-amino-1-(benzo[b]thiophen-2-yl)carbonyl-3-[4-[2-(imidazol-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
- 5-amino-1-(1,4-benzodioxan-6-yl)carbonyl-3-[4-[2-((S)-3-fluoropyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole; and

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5-amino-1-(1H-indol-6-yl)carbonyl-3-[4-[2-((S)-3-fluoropyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole.

Another embodiment of the compounds of formula (Ia) are compounds of formula (Ia) wherein:

5 A is -C(O)-;

R¹ is phenyl substituted with one or more substituents selected from the group consisting of halo, haloalkyl, alkyl, optionally substituted heteroaryl, optionally substituted heterocyclyl, , -R⁸-O-R⁹-OR¹⁰, -R⁸-O-R⁹-O-R⁹-OR¹⁰, -R⁸-O-R⁹-CN, -R⁸-O-R⁹-C(O)OR¹⁰, -R⁸-O-R⁹-C(O)N(R⁶)R⁷, -R⁸-O-R⁹-S(O)_pR⁶ (where p is 0, 1 or 2), -R⁸-O-R⁹-N(R⁶)R⁷, -R⁸-O-R⁹-C(NR¹¹)N(R¹¹)H, -R⁸-N(R⁶)C(O)R¹⁰, and -R⁸-OR¹⁰ (where R¹⁰ for -R⁸-OR¹⁰ is hydrogen, alkyl, haloalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted heterocyclyl, or optionally substituted heteroaryl);

15 R², R⁴ and R⁵ are each hydrogen;

R³ is heteroaryl optionally substituted with one or more substituents selected from the group consisting of alkyl, oxo, and -R⁸-OR¹⁰;

R⁶ and R⁷ are each independently selected from the group consisting of hydrogen, alkyl, haloalkyl, hydroxyalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, -R⁹-OR¹⁰, -R⁹-CN, -R⁹-NO₂, -R⁹-N(R¹⁰)₂, -R⁹-C(O)OR¹⁰ and -R⁹-C(O)N(R¹⁰)₂;

each R⁸ is independently selected from the group consisting of a direct bond, an optionally substituted straight or branched alkylene chain or an optionally substituted straight or branched alkenylene chain;

each R⁹ is independently selected from the group consisting of an optionally substituted straight or branched alkylene chain or an optionally substituted straight or branched alkenylene chain; and

30 each R¹⁰ is independently selected from the group consisting of hydrogen, alkyl, haloalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heteroaryl, or optionally substituted heteroarylalkyl; and

35 each R¹¹ is hydrogen, alkyl, cyano, nitro or -OR¹⁰.

FIG. 1 is a chemical structure of a compound of formula (Ia).

Of this embodiment, a specific embodiment is a compound of formula (Ia) selected from the group consisting of:

5-amino-1-(2,2-dimethyl-2H-benzo[b][1,4]oxazin-3(4H)-on-6-yl)carbonyl-3-(4-(isopropoxy)phenyl)amino-1H-1,2,4-triazole;

5 5-amino-1-(2,2-dimethyl-2H-benzo[b][1,4]oxazin-3(4H)-on-6-yl)carbonyl-3-(4-(morpholin-4-yl)phenylamino)-1H-1,2,4-triazole;

5-amino-3-[4-[2-(dimethylamino)ethoxy]phenylamino]-1-(2,2-dimethyl-2H-benzo[b][1,4]oxazin-3(4H)-on-6-yl)carbonyl-1H-1,2,4-triazole;

5-amino-3-[4-[2-(dimethylamino)propoxy]phenylamino]-1-(2,2-dimethyl-2H-benzo[b][1,4]oxazin-3(4H)-on-6-yl)carbonyl-1H-1,2,4-triazole; and

10 5-amino-1-(2,2-dimethyl-2H-benzo[b][1,4]oxazin-3(4H)-on-6-yl)carbonyl-3-[4-(pyrrolidin-1-yl)phenylamino]-1H-1,2,4-triazole.

Another embodiment of the compounds of formula (Ia) are compounds of formula (Ia) wherein:

15 A is -C(O)-;

R¹ is heteroaryl optionally substituted with one or more substituents selected from the group consisting of alkyl, halo, oxo, -R⁸-OR¹⁰, -R⁸-C(O)OR¹⁰, -R⁸-C(O)N(R⁶)R⁷ and -R⁸-N(R⁶)R⁷;

or R¹ is heterocyclyl optionally substituted with one or more substituents selected from the group consisting of halo, haloalkyl, alkyl, oxo, -R⁸-OR¹⁰, -R⁸-C(O)OR¹⁰, -R⁸-C(O)N(R⁶)R⁷, -R⁸-S(O)_pR¹⁰ (where p is 0, 1 or 2) and -R⁸-N(R⁶)R⁷;

or R¹ is heterocyclylalkyl optionally substituted with one or more substituents selected from the group consisting of halo, haloalkyl, alkyl, optionally substituted aryl, optionally substituted aralkyl, -R⁸-OR¹⁰, -R⁸-C(O)OR¹⁰, -R⁸-C(O)N(R⁶)R⁷ and -R⁸-N(R⁶)R⁷;

R² is hydrogen, alkyl or -C(O)R¹⁰;

R⁴ and R⁵ are each hydrogen or alkyl;

R³ is one of the following:

a) alkyl optionally substituted with one or more substituents selected from the group consisting of halo, cyano, nitro, oxo, thioxo, trimethylsilyl, -OR¹⁴, -OC(O)-R¹⁴, -N(R¹⁴)₂, -C(O)R¹⁴, -C(O)OR¹⁴, -C(O)N(R¹⁴)₂, -N(R¹⁴)C(O)OR¹⁴, -N(R¹⁴)C(O)R¹⁴, -N(R¹⁴)S(O)_tR¹⁴ (where t is 1 or 2), -S(O)_tOR¹⁴ (where t is 1 or 2), -S(O)_pR¹⁴ (where p is 0, 1 or 2), and -S(O)_tN(R¹⁴)₂ (where t is 1 or 2) where each R¹⁴ is independently hydrogen, alkyl, haloalkyl, cycloalkyl, cycloalkylalkyl, aryl (optionally substituted with one or more halo groups), aralkyl, heterocyclyl,

heterocylylalkyl, heteroaryl or heteroarylalkyl;

b) cycloalkyl optionally substituted with one or more substituents selected from the group consisting of $-R^8-OR^{10}$, alkyl, halo, haloalkyl, aryl, and aralkyl;

c) aryl substituted with one or more substituents selected from the group consisting of alkyl, halo, haloalkyl, nitro, cycloalkyl, cycloalkylalkyl, optionally substituted aryl, optionally substituted heteroaryl, optionally substituted heterocyclyl, $-R^8-OR^{10}$, $-R^8-C(O)OR^{10}$, $-R^8-OC(O)R^{10}$, $-R^8-O-R^9-C(O)OR^{10}$, $-R^8-O-R^9-C(O)N(R^6)R^7$, $-S(O)_pR^6$ (where p is 0, 1 or 2), $-S(O)_tN(R^6)R^7$ (where t is 1 or 2), $-R^8-N(R^6)R^7$, $-R^8-N(R^6)C(O)R^{10}$ and $-R^8-CN$;

d) aralkyl, wherein:

(1) the alkyl part of the aralkyl radical is optionally substituted with one or more substituents selected from the group consisting of halo, cyano, nitro, oxo, thioxo, trimethylsilyl, $-OR^{14}$, $-OC(O)-R^{14}$, $-N(R^{14})_2$, $-C(O)R^{14}$, $-C(O)OR^{14}$, $-C(O)N(R^{14})_2$, $-N(R^{14})C(O)OR^{14}$, $-N(R^{14})C(O)R^{14}$, $-N(R^{14})S(O)_tR^{14}$ (where t is 1 or 2), $-S(O)_tOR^{14}$ (where t is 1 or 2), $-S(O)_pR^{14}$ (where p is 0, 1 or 2), and $-S(O)_tN(R^{14})_2$ (where t is 1 or 2) where each R^{14} is independently hydrogen, alkyl, haloalkyl, cycloalkyl, cycloalkylalkyl, aryl (optionally substituted with one or more halo groups), aralkyl, heterocyclyl, heterocylylalkyl, heteroaryl or heteroarylalkyl; and

(2) the aryl part of the aralkyl radical is optionally substituted with one or more substituents selected from the group consisting of alkyl, alkenyl, alkynyl, halo, haloalkyl, haloalkenyl, haloalkynyl, cyano, nitro, aryl, aralkyl, aralkenyl, aralkynyl, cycloalkyl, cycloalkylalkyl, cycloalkylalkenyl, cycloalkylalkynyl, heterocyclyl, heterocyclylalkyl, heterocyclylalkenyl, heterocyclylalkynyl, heteroaryl, heteroarylalkyl, heteroarylalkenyl, heteroarylalkynyl, $-R^{15}-OR^{14}$, $-R^{15}-OC(O)-R^{14}$, $-R^{15}-N(R^{14})_2$, $-R^{15}-C(O)R^{14}$, $-R^{15}-C(O)OR^{14}$, $-R^{15}-C(O)N(R^{14})_2$, $-R^{15}-O-R^{16}-C(O)N(R^{14})_2$, $-R^{15}-N(R^{14})C(O)OR^{14}$, $-R^{15}-N(R^{14})C(O)R^{14}$, $-R^{15}-N(R^{14})S(O)_tR^{14}$ (where t is 1 or 2), $-R^{15}-S(O)_tOR^{14}$ (where t is 1 or 2), $-R^{15}-S(O)_pR^{14}$ (where p is 0, 1 or 2), and $-R^{15}-S(O)_tN(R^{14})_2$ (where t is 1 or 2), where each R^{14} is independently hydrogen, alkyl, haloalkyl, cycloalkyl, cycloalkylalkyl, aryl, aralkyl, heterocyclyl, heterocyclylalkyl, heteroaryl or heteroarylalkyl, each R^{15} is independently a direct bond or a straight or branched alkylene or alkenylene chain, and R^{16} is a straight or branched alkylene or alkenylene chain;

e) heteroaryl optionally substituted with one or more substituents selected

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from the group consisting of alkyl, oxo, and $-R^8-OR^{10}$; or

f) heteroarylalkenyl where the heteroaryl part of the heteroarylalkyl radical is optionally substituted with one or more substituents selected from the group consisting of alkyl, halo, haloalkyl, aryl and aralkyl;

5 R^6 and R^7 are each independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, haloalkyl, haloalkenyl, haloalkynyl, hydroxyalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted aralkenyl, optionally substituted aralkynyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted cycloalkylalkenyl, optionally substituted cycloalkylalkynyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heterocyclylalkenyl, optionally substituted heterocyclylalkynyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, optionally substituted heteroarylalkenyl, optionally substituted heteroarylalkynyl, $-R^9-OR^{10}$, $-R^9-CN$, $-R^9-NO_2$, $-R^9-N(R^{10})_2$,
10 $-R^9-C(O)OR^{10}$ and $-R^9-C(O)N(R^{10})_2$;

optionally, R^6 and R^7 , together with the nitrogen to which they are attached, form an optionally substituted *N*-heteroaryl or an optionally substituted *N*-heterocyclyl;

each R^8 is independently selected from the group consisting of a direct bond, an optionally substituted straight or branched alkylene chain, an optionally substituted straight or branched alkenylene chain and an optionally substituted straight or branched alkynylene chain;

each R^9 is independently selected from the group consisting of an optionally substituted straight or branched alkylene chain, an optionally substituted straight or branched alkenylene chain and an optionally substituted straight or branched alkynylene chain; and

each R^{10} is independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, haloalkyl, haloalkenyl, haloalkynyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted aralkenyl, optionally substituted aralkynyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted cycloalkylalkenyl, optionally substituted cycloalkylalkynyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heterocyclylalkenyl, optionally substituted heterocyclylalkynyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, optionally substituted heteroarylalkenyl, optionally substituted heteroarylalkynyl.

Another embodiment of the compounds of formula (Ia) are compounds of formula (Ia) wherein:

A is -C(O)-;

R¹ is heteroaryl optionally substituted with one or more substituents selected from the group consisting of alkyl, halo, oxo, -R⁸-OR¹⁰, -R⁸-C(O)OR¹⁰, -R⁸-C(O)N(R⁶)R⁷ and -R⁸-N(R⁶)R⁷;

or R¹ is heterocyclyl optionally substituted with one or more substituents selected from the group consisting of halo, haloalkyl, alkyl, oxo, -R⁸-OR¹⁰, -R⁸-C(O)OR¹⁰, -R⁸-C(O)N(R⁶)R⁷, -R⁸-S(O)_pR¹⁰ (where p is 0, 1 or 2) and -R⁸-N(R⁶)R⁷;

or R¹ is heterocyclylalkyl optionally substituted with one or more substituents selected from the group consisting of halo, haloalkyl, alkyl, optionally substituted aryl, optionally substituted aralkyl, -R⁸-OR¹⁰, -R⁸-C(O)OR¹⁰, -R⁸-C(O)N(R⁶)R⁷ and -R⁸-N(R⁶)R⁷;

R² is hydrogen, alkyl or -C(O)R¹⁰;

R⁴ and R⁵ are each hydrogen or alkyl;

R³ is alkyl optionally substituted with one or more substituents selected from the group consisting of halo, cyano, nitro, oxo, thioxo, trimethylsilyl, -OR¹⁴, -OC(O)-R¹⁴, -N(R¹⁴)₂, -C(O)R¹⁴, -C(O)OR¹⁴, -C(O)N(R¹⁴)₂, -N(R¹⁴)C(O)OR¹⁴, -N(R¹⁴)C(O)R¹⁴, -N(R¹⁴)S(O)_tR¹⁴ (where t is 1 or 2), -S(O)_tOR¹⁴ (where t is 1 or 2), -S(O)_pR¹⁴ (where p is 0, 1 or 2), and -S(O)_tN(R¹⁴)₂ (where t is 1 or 2) where each R¹⁴ is independently hydrogen, alkyl, haloalkyl, cycloalkyl, cycloalkylalkyl, aryl (optionally substituted with one or more halo groups), aralkyl, heterocyclyl, heterocyclalkyl, heteroaryl or heteroarylalkyl;

or R³ is phenyl substituted with one or more substituents selected from the group consisting of alkyl, halo, haloalkyl, nitro, cycloalkyl, cycloalkylalkyl, optionally substituted aryl, optionally substituted heteroaryl, optionally substituted heterocyclyl, -R⁸-OR¹⁰, -R⁸-C(O)OR¹⁰, -R⁸-OC(O)R¹⁰, -R⁸-O-R⁹-C(O)OR¹⁰, -R⁸-O-R⁹-C(O)N(R⁶)R⁷, -S(O)_pR⁶ (where p is 0, 1 or 2), -S(O)_tN(R⁶)R⁷ (where t is 1 or 2), -R⁸-N(R⁶)R⁷, -R⁸-N(R⁶)C(O)R¹⁰ and -R⁸-CN;

or R³ is heteroaryl optionally substituted with one or more substituents selected from the group consisting of alkyl, oxo, and -R⁸-OR¹⁰;

R⁶ and R⁷ are each independently selected from the group consisting of hydrogen, alkyl, haloalkyl, hydroxyalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted heterocyclyl, optionally substituted heterocyclalkyl,

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optionally substituted heteroaryl, optionally substituted heteroarylalkyl, $-R^9-OR^{10}$, $-R^9-CN$, $-R^9-NO_2$, $-R^9-N(R^{10})_2$, $-R^9-C(O)OR^{10}$ and $-R^9-C(O)N(R^{10})_2$;

each R^8 is independently selected from the group consisting of a direct bond, an optionally substituted straight or branched alkylene chain or an optionally substituted straight or branched alkenylene chain;

each R^9 is independently selected from the group consisting of an optionally substituted straight or branched alkylene chain or an optionally substituted straight or branched alkenylene chain; and

each R^{10} is independently selected from the group consisting of hydrogen, alkyl, haloalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heteroaryl, or optionally substituted heteroarylalkyl.

Another embodiment of the compounds of formula (Ia) are compounds of formula

(Ia) wherein:

A is $-C(O)-$;

R^1 is heterocyclyl optionally substituted with one or more substituents selected from the group consisting of halo, haloalkyl, alkyl, oxo, $-R^8-OR^{10}$, $-R^8-C(O)OR^{10}$, $-R^8-C(O)N(R^6)R^7$, $-R^8-S(O)_pR^{10}$ (where p is 0, 1 or 2) and $-R^8-N(R^6)R^7$;

or R^1 is heterocyclylalkyl optionally substituted with one or more substituents selected from the group consisting of halo, haloalkyl, alkyl, optionally substituted aryl, optionally substituted aralkyl, $-R^8-OR^{10}$, $-R^8-C(O)OR^{10}$, $-R^8-C(O)N(R^6)R^7$ and $-R^8-N(R^6)R^7$;

R^2 is hydrogen, alkyl or $-C(O)R^{10}$;

R^4 and R^5 are each hydrogen or alkyl;

R^3 is phenyl substituted with one or more substituents selected from the group consisting of alkyl, halo, haloalkyl, optionally substituted heterocyclyl, $-R^8-OR^{10}$, and $-R^8-N(R^6)R^7$;

or R^3 is heteroaryl optionally substituted with one or more substituents selected from the group consisting of alkyl, oxo, and $-R^8-OR^{10}$;

R^6 and R^7 are each independently selected from the group consisting of hydrogen, alkyl, haloalkyl, hydroxyalkyl, optionally substituted aryl, and optionally substituted aralkyl;

each R^8 is independently selected from the group consisting of a direct bond and an optionally substituted straight or branched alkylene chain;

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each R¹⁰ is independently selected from the group consisting of hydrogen, alkyl, haloalkyl, optionally substituted aryl, and optionally substituted aralkyl.

Of this embodiment, a specific embodiment is a compound of formula (Ia) selected from the group consisting of:

- 5 5-amino-1-(2,6-difluorophenyl)carbonyl-3-(1-methylsulfonylpiperidin-4-yl)amino-1H-1,2,4-triazole;
- 5-amino-1-(4-(*tert*-butoxy)phenyl)carbonyl-3-(1-methylsulfonylpiperidin-4-yl)amino-1H-1,2,4-triazole;
- 5-amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-3-(1-methylsulfonylpiperidin-4-yl)amino-1H-1,2,4-triazole;
- 10 5-amino-1-(4-(dimethylamino)phenyl)carbonyl-3-(1-methylsulfonylpiperidin-4-yl)amino-1H-1,2,4-triazole;
- 5-amino-1-(1,4-benzodioxan-6-yl)carbonyl-3-(1-methylsulfonylpiperidin-4-yl)amino-1H-1,2,4-triazole;
- 15 5-amino-1-(1H-indol-6-yl)carbonyl-3-(1-methylsulfonylpiperidin-4-yl)amino-1H-1,2,4-triazole;
- 5-amino-1-(4-(morpholin-4-yl)phenyl)carbonyl-3-(1-methylsulfonylpiperidin-4-yl)amino-1H-1,2,4-triazole;
- 5-amino-3-[*N*-(3-(4-(2-chloro-6-fluorophenyl)piperazin-1-yl)prop-1-yl)-*N*-(3-methylphenyl)carbonyl)amino]-1-(3-methylphenyl)carbonyl-1H-1,2,4-triazole; and
- 20 5-amino-3-[3-(4-(2-chloro-6-fluorophenyl)piperazin-1-yl)prop-1-yl]amino-1-(3-methylphenyl)carbonyl-1H-1,2,4-triazole.

Another embodiment of the compounds of formula (Ia) are compounds of formula (Ia) wherein:

- 25 A is -C(O)-;
- R¹ is heteroaryl optionally substituted with one or more substituents selected from the group consisting of alkyl, halo, oxo, -R⁸-OR¹⁰, -R⁸-C(O)OR¹⁰, -R⁸-C(O)N(R⁶)R⁷ and -R⁸-N(R⁶)R⁷;
- R², R⁴ and R⁵ are each hydrogen;
- 30 R³ is alkyl optionally substituted with one or more substituents selected from the group consisting of halo, cyano, nitro, oxo, thioxo, trimethylsilyl, -OR¹⁴, -OC(O)-R¹⁴, -N(R¹⁴)₂, -C(O)R¹⁴, -C(O)OR¹⁴, -C(O)N(R¹⁴)₂, -N(R¹⁴)C(O)OR¹⁴, -N(R¹⁴)C(O)R¹⁴, -N(R¹⁴)S(O)_tR¹⁴ (where t is 1 or 2), -S(O)_tOR¹⁴ (where t is 1 or 2), -S(O)_pR¹⁴ (where p is 0, 1 or 2), and -S(O)_tN(R¹⁴)₂ (where t is 1 or 2) where each R¹⁴ is
- 35 independently hydrogen, alkyl, haloalkyl, cycloalkyl, cycloalkylalkyl, aryl

(optionally substituted with one or more halo groups), aralkyl, heterocyclyl, heterocyclalkyl, heteroaryl or heteroarylalkyl;

or R^3 is phenyl substituted with one or more substituents selected from the group consisting of alkyl, halo, haloalkyl, nitro, cycloalkyl, cycloalkylalkyl, optionally substituted aryl, optionally substituted heteroaryl, optionally substituted heterocyclyl, $-R^8-OR^{10}$, $-R^8-C(O)OR^{10}$, $-R^8-OC(O)R^{10}$, $-R^8-O-R^9-C(O)OR^{10}$, $-R^8-O-R^9-C(O)N(R^6)R^7$, $-S(O)_pR^6$ (where p is 0, 1 or 2), $-S(O)_tN(R^6)R^7$ (where t is 1 or 2), $-R^8-N(R^6)R^7$, $-R^8-N(R^6)C(O)R^{10}$ and $-R^8-CN$;

or R^3 is heteroaryl optionally substituted with one or more substituents selected from the group consisting of alkyl, oxo, and $-R^8-OR^{10}$;

R^6 and R^7 are each independently selected from the group consisting of hydrogen, alkyl, haloalkyl, hydroxyalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted heterocyclyl, optionally substituted heterocyclalkyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, $-R^9-OR^{10}$, $-R^9-CN$, $-R^9-NO_2$, $-R^9-N(R^{10})_2$, $-R^9-C(O)OR^{10}$ and $-R^9-C(O)N(R^{10})_2$;

each R^8 is independently selected from the group consisting of a direct bond, an optionally substituted straight or branched alkylene chain or an optionally substituted straight or branched alkenylene chain;

each R^9 is independently selected from the group consisting of an optionally substituted straight or branched alkylene chain or an optionally substituted straight or branched alkenylene chain; and

each R^{10} is independently selected from the group consisting of hydrogen, alkyl, haloalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted heterocyclyl, optionally substituted heterocyclalkyl, optionally substituted heteroaryl, or optionally substituted heteroarylalkyl.

Another embodiment of the compounds of formula (Ia) are compounds of formula (Ia) wherein:

A is $-C(O)-$;

R^1 is heteroaryl optionally substituted with one or more substituents selected from the group consisting of alkyl, halo, oxo, $-R^8-OR^{10}$, $-R^8-C(O)OR^{10}$, $-R^8-C(O)N(R^6)R^7$ and $-R^8-N(R^6)R^7$;

R^2 , R^4 and R^5 are each hydrogen;

R^3 is alkyl optionally substituted with one or more substituents selected from the group

consisting of halo, cyano, nitro, oxo, thioxo, trimethylsilyl, $-OR^{14}$, $-OC(O)-R^{14}$,
 $-N(R^{14})_2$, $-C(O)R^{14}$, $-C(O)OR^{14}$, $-C(O)N(R^{14})_2$, $-N(R^{14})C(O)OR^{14}$, $-N(R^{14})C(O)R^{14}$,
 $-N(R^{14})S(O)_tR^{14}$ (where t is 1 or 2), $-S(O)_tOR^{14}$ (where t is 1 or 2), $-S(O)_pR^{14}$
 (where p is 0, 1 or 2), and $-S(O)_tN(R^{14})_2$ (where t is 1 or 2) where each R^{14} is
 5 independently hydrogen, alkyl, haloalkyl, cycloalkyl, cycloalkylalkyl, aryl
 (optionally substituted with one or more halo groups), aralkyl, heterocyclyl,
 heterocylalkyl, heteroaryl or heteroarylalkyl;

or R^3 is heteroaryl optionally substituted with one or more substituents selected from the
 group consisting of alkyl, oxo, and $-R^8-OR^{10}$;

10 R^6 and R^7 are each independently selected from the group consisting of hydrogen, alkyl,
 haloalkyl, hydroxyalkyl, optionally substituted aryl, and optionally substituted
 aralkyl;

each R^8 is independently selected from the group consisting of a direct bond and an
 optionally substituted straight or branched alkylene chain;

15 each R^{10} is independently selected from the group consisting of hydrogen, alkyl,
 haloalkyl, optionally substituted aryl, and optionally substituted aralkyl.

Of this embodiment, a specific embodiment is a compound of formula (Ia)
 selected from the group consisting of:

1-acetyl-5-amino-3-(1,4-benzodioxan-6-yl)amino-1H-1,2,4-triazole; and

20 5-amino-1-(1H-indol-6-yl)carbonyl-3-[4-((*tert*-butoxycarbonyl)aminochroman-6-yl)]amino-
 1H-1,2,4-triazole.

Another embodiment of the compounds of formula (Ia) are compounds of formula
 (Ia) wherein:

A is $-C(O)-$;

25 R^1 is heteroaryl optionally substituted with one or more substituents selected from the
 group consisting of alkyl, halo, oxo, $-R^8-OR^{10}$, $-R^8-C(O)OR^{10}$, $-R^8-C(O)N(R^6)R^7$
 and $-R^8-N(R^6)R^7$;

R^2 , R^4 and R^5 are each hydrogen;

R^3 is phenyl substituted with one or more substituents selected from the group consisting

30 of alkyl, halo, haloalkyl, nitro, cycloalkyl, cycloalkylalkyl, optionally substituted
 aryl, optionally substituted heteroaryl, optionally substituted heterocyclyl,
 $-R^8-OR^{10}$, $-R^8-C(O)OR^{10}$, $-R^8-OC(O)R^{10}$, $-R^8-O-R^9-C(O)OR^{10}$,
 $-R^8-O-R^9-C(O)N(R^6)R^7$, $-S(O)_pR^6$ (where p is 0, 1 or 2), $-S(O)_tN(R^6)R^7$ (where t is
 1 or 2), $-R^8-N(R^6)R^7$, $-R^8-N(R^6)C(O)R^{10}$ and $-R^8-CN$;

35 R^6 and R^7 are each independently selected from the group consisting of hydrogen, alkyl,

Figure 1: Chemical structure of compound (Ia)

haloalkyl, hydroxyalkyl, optionally substituted aryl, and optionally substituted aralkyl;

each R⁸ is independently selected from the group consisting of a direct bond and an optionally substituted straight or branched alkylene chain;

- 5 each R⁹ is an optionally substituted straight or branched alkylene chain; and
each R¹⁰ is independently selected from the group consisting of hydrogen, alkyl, haloalkyl, optionally substituted aryl, and optionally substituted aralkyl.

Of this embodiment, a specific embodiment is a compound of formula (Ia) selected from the group consisting of:

- 10 5-amino-3-[N-(2-(tetrahydropyran-2-yloxy)methylbenzofuran-5-yl)amino]-1-(3-(methyl)phenyl)carbonyl-1H-1,2,4-triazole;
5-amino-1-(2-(chloro)phenyl)carbonyl-3-(1,4-benzodioxan-6-yl)amino-1H-1,2,4-triazole;
5-amino-1-(4-(chloro)phenyl)carbonyl-3-(1,4-benzodioxan-6-yl)amino-1H-1,2,4-triazole;
5-amino-3-(1,4-benzodioxan-6-yl)amino-1-(3-(methyl)phenyl)carbonyl-1H-1,2,4-triazole;
15 5-amino-3-(1,4-benzodioxan-6-yl)amino-1-(2-(methyl)phenyl)carbonyl-1H-1,2,4-triazole;
5-amino-3-(1,4-benzodioxan-6-yl)amino-1-(3-(methoxy)phenyl)carbonyl-1H-1,2,4-triazole;
5-amino-3-(1,4-benzodioxan-6-yl)amino-1-(2-(fluoro)phenyl)carbonyl-1H-1,2,4-triazole;
5-amino-3-(1,4-benzodioxan-6-yl)amino-1-(4-(fluoro)phenyl)carbonyl-1H-1,2,4-triazole;
20 5-amino-1-(3-(chloro)phenyl)carbonyl-3-(1,4-benzodioxan-6-yl)amino-1H-1,2,4-triazole;
5-amino-3-(1,4-benzodioxan-6-yl)amino-1-(4-(methyloxy)phenyl)carbonyl-1H-1,2,4-triazole;
5-amino-3-(2-(ethoxycarbonyl)benzofuran-5-yl)amino-1-(3-(*iso*-propoxy)phenyl)carbonyl-1H-1,2,4-triazole;
25 5-amino-3-(1,4-benzodioxan-6-yl)amino-1-(4-(methyl)phenyl)carbonyl-1H-1,2,4-triazole;
5-amino-3-(1,4-benzodioxan-6-yl)amino-1-(3-(fluoro)phenyl)carbonyl-1H-1,2,4-triazole;
5-amino-3-(1,4-benzodioxan-6-yl)amino-1-(2-(methyloxy)phenyl)carbonyl-1H-1,2,4-triazole;
1-(4-(acetoxo)phenyl)carbonyl-5-amino-3-(1,4-benzodioxan-6-yl)amino-1H-1,2,4-triazole;
30 1-(3-(acetoxo)phenyl)carbonyl-5-amino-3-(1,4-benzodioxan-6-yl)amino-1H-1,2,4-triazole;
5-amino-3-(1,4-benzodioxan-6-yl)amino-1-(3-(*iso*-propoxy)phenyl)carbonyl-1H-1,2,4-triazole;
5-amino-3-(1,4-benzodioxan-6-yl)amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-1H-1,2,4-triazole;
35 5-amino-1-(4-(ethoxyphenyl)carbonyl-3-(1,4-benzodioxan-6-yl)amino-1H-1,2,4-triazole;

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35

1-(2-(acetoxymethyl)phenyl)carbonyl-5-amino-3-(1,4-benzodioxan-6-yl)amino-1H-1,2,4-triazole;
5-amino-1-(4-(cyclopentoxymethyl)phenyl)carbonyl-3-(1,4-benzodioxan-6-yl)amino-1H-1,2,4-triazole;

5-amino-3-(1,4-benzodioxan-6-yl)amino-1-[4-(methoxycarbonylmethoxy)phenyl]carbonyl-1H-1,2,4-triazole;

5-amino-1-(3-(cyclopentoxymethyl)phenyl)carbonyl-3-(1,4-benzodioxan-6-yl)amino-1H-1,2,4-triazole;

5-amino-1-(3-(ethoxymethyl)phenyl)carbonyl-3-(1,4-benzodioxan-6-yl)amino-1H-1,2,4-triazole;

5-amino-3-(2-(hydroxymethyl)benzofuran-5-yl)amino-1-(3-(methylphenyl)carbonyl)-1H-1,2,4-triazole;

5-amino-3-(1,4-benzodioxan-6-yl)amino-1-[3-(methoxycarbonylmethoxy)phenyl]carbonyl-1H-1,2,4-triazole;

5-amino-1-(4-(benzyloxy)phenyl)carbonyl-3-(1,4-benzodioxan-6-yl)amino-1H-1,2,4-triazole;

5-amino-3-(1,4-benzodioxan-6-yl)amino-1-[4-[2-(morpholin-4-yl)ethoxy]phenyl]carbonyl-1H-1,2,4-triazole;

5-amino-3-(1,4-benzodioxan-6-yl)amino-1-[3-[2-(morpholin-4-yl)ethoxy]phenyl]carbonyl-1H-1,2,4-triazole;

5-amino-3-(indazol-5-yl)amino-1-(3-(methylphenyl)carbonyl)-1H-1,2,4-triazole;

5-amino-1-(3-(benzyloxy)phenyl)carbonyl-3-(1,4-benzodioxan-6-yl)amino-1H-1,2,4-triazole;

5-amino-3-(indazol-6-yl)amino-1-(3-(methylphenyl)carbonyl)-1H-1,2,4-triazole;

5-amino-3-(benzo[b][1,4]oxazin-3(4H)-on-6-yl)amino-1-(3-(methylphenyl)carbonyl)-1H-1,2,4-triazole;

5-amino-3-(1,4-benzodioxan-6-yl)amino-1-(4-(hydroxymethyl)phenyl)carbonyl-1H-1,2,4-triazole;

5-amino-3-(1,4-benzodioxan-6-yl)amino-1-(3-(hydroxymethyl)phenyl)carbonyl-1H-1,2,4-triazole;

5-amino-3-[(2H,3H-4-*tert*-butoxycarbonylbenzo[1,4]oxazin-6-yl)amino]-1-(3-methylphenyl)carbonyl-1,2,4-triazole;

5-amino-1-(3-methylphenyl)carbonyl-3-[2-[N-[2-(tetrahydropyran-2-yl)oxy]ethyl]amino]carbonylbenzofuran-5-yl]amino-1H-1,2,4-triazole;

5-amino-3-[2-[2-hydroxyethylaminocarbonyl]benzofuran-5-yl]amino-1-(3-methylphenyl)carbonyl-1H-1,2,4-triazole;

5-amino-1-[3-[2-(1,3-dioxolan-2-yl)ethoxy]phenyl]carbonyl-3-(1,4-benzodioxan-6-yl)amino-1H-1,2,4-triazole;

5-amino-1-[4-[2-(1,3-dioxolan-2-yl)ethoxy]phenyl]carbonyl-3-(1,4-benzodioxan-6-

PL 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000

triazole;

5-amino-1-(4-cyanophenyl)carbonyl-3-(1,4-benzodioxan-6-yl)amino-1H-1,2,4-triazole;

1-[(4-acetylamino)phenyl]carbonyl-5-amino-3-(1,4-benzodioxan-6-yl)amino-1H-1,2,4-triazole;

5 5-amino-1-[(4-dimethylamino)phenyl]carbonyl-3-(1,4-benzodioxan-6-yl)amino-1H-1,2,4-triazole;

5-amino-3-(1,4-benzodioxan-6-yl)amino-1-[(4-methylsulfonyl)phenyl]carbonyl-1H-1,2,4-triazole;

10 5-amino-1-[(3-chloro-4-methyl)phenyl]carbonyl-3-(1,4-benzodioxan-6-yl)amino-1H-1,2,4-triazole;

5-amino-3-(benzothiazol-6-yl)amino-1-(3-methylphenyl)carbonyl-1H-1,2,4-triazole;

5-amino-1-(3-methylphenyl)carbonyl-3-(6-quinoliny)amino-1H-1,2,4-triazole ;

5-amino-3-(1H-indol-5-yl)amino-1-(3-methylphenyl)carbonyl-1H-1,2,4-triazole;

15 5-amino-3-(1H-2-methyl-indazol-6-yl)amino-1-(3-methylphenyl)carbonyl-1H-1,2,4-triazole;

5-amino-3-(1H-1-methyl-indazol-6-yl)amino-1-(3-methylphenyl)carbonyl-1H-1,2,4-triazole;

5-amino-3-(1H-2-methyl-indol-5-yl)amino-1-(3-methylphenyl)carbonyl-1H-1,2,4-triazole;

5-amino-3-(benzothiazol-2-yl)amino-1-(3-methylphenyl)carbonyl-1H-1,2,4-triazole;

20 5-amino-3-(1,4-benzodioxan-6-yl)amino-1-(3-methyl-4-methoxy)phenylcarbonyl-1H-1,2,4-triazole;

5-amino-3-(1,4-benzodioxan-6-yl)amino-1-(3-methyl-4-*iso*-propoxy)phenylcarbonyl-1H-1,2,4-triazole;

5-amino-3-(1,2-benzisothiazol-5-yl)amino-1-(3-methylphenyl)carbonyl-1H-1,2,4-triazole;

25 5-amino-3-(3-methyl-1,2-benzisothiazol-5-yl)amino-1-(3-methylphenyl)carbonyl-1H-1,2,4-triazole;

5-amino-3-(2,2-difluoro-2H-benzo[b][1,4]oxazin-3(4H)-on-6-yl)amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-1H-1,2,4-triazole;

30 5-amino-3-(2,2-difluoro-2H-benzo[b][1,4]oxazin-3(4H)-on-6-yl)amino-1-(3-(methyl)phenyl)carbonyl-1H-1,2,4-triazole;

5-amino-1-(4-(*tert*-butyl)phenyl)carbonyl-3-[4-((*tert*-butoxycarbonyl)aminochroman-6-yl)]amino-1H-1,2,4-triazole;

5-amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-3-[4-((*tert*-butoxycarbonyl)aminochroman-6-yl)]amino-1H-1,2,4-triazole;

35 5-amino-1-(4-(*tert*-butoxy)phenyl)carbonyl-3-[4-((*tert*-butoxycarbonyl)aminochroman-6-

yl]amino-1H-1,2,4-triazole;

Another embodiment of the compounds of formula (Ia) are compounds of formula (Ia) wherein:

A is -C(O)-;

- 5 R¹ is cycloalkyl optionally substituted with one or more substituents selected from the group consisting of halo, haloalkyl, alkyl, oxo, -R⁸-OR¹⁰, -R⁸-C(O)OR¹⁰, -R⁸-C(O)N(R⁶)R⁷, -R⁸-S(O)_pR¹⁰ (where p is 0, 1 or 2) and -R⁸-N(R⁶)R⁷;

R², R⁴ and R⁵ are each hydrogen;

R³ is one of the following:

- 10 a) alkyl optionally substituted with one or more substituents selected from the group consisting of halo, cyano, nitro, oxo, thioxo, trimethylsilyl, -OR¹⁴, -OC(O)-R¹⁴, -N(R¹⁴)₂, -C(O)R¹⁴, -C(O)OR¹⁴, -C(O)N(R¹⁴)₂, -N(R¹⁴)C(O)OR¹⁴, -N(R¹⁴)C(O)R¹⁴, -N(R¹⁴)S(O)_tR¹⁴ (where t is 1 or 2), -S(O)_tOR¹⁴ (where t is 1 or 2), -S(O)_pR¹⁴ (where p is 0, 1 or 2), and -S(O)_tN(R¹⁴)₂ (where t is 1 or 2) where each
- 15 R¹⁴ is independently hydrogen, alkyl, haloalkyl, cycloalkyl, cycloalkylalkyl, aryl (optionally substituted with one or more halo groups), aralkyl, heterocyclyl, heterocylalkyl, heteroaryl or heteroarylalkyl;
- b) cycloalkyl optionally substituted with one or more substituents selected from the group consisting of -R⁸-OR¹⁰, alkyl, halo, haloalkyl, aryl, and aralkyl;
- 20 c) aryl substituted with one or more substituents selected from the group consisting of alkyl, halo, haloalkyl, nitro, cycloalkyl, cycloalkylalkyl, optionally substituted aryl, optionally substituted heteroaryl, optionally substituted heterocyclyl, -R⁸-OR¹⁰, -R⁸-C(O)OR¹⁰, -R⁸-OC(O)R¹⁰, -R⁸-O-R⁹-C(O)OR¹⁰, -R⁸-O-R⁹-C(O)N(R⁶)R⁷, -S(O)_pR⁶ (where p is 0, 1 or 2), -S(O)_tN(R⁶)R⁷ (where t is
- 25 1 or 2), -R⁸-N(R⁶)R⁷, -R⁸-N(R⁶)C(O)R¹⁰ and -R⁸-CN;
- d) aralkyl, wherein:
- (1) the alkyl part of the aralkyl radical is optionally substituted with one or more substituents selected from the group consisting of halo, cyano, nitro, oxo, thioxo, trimethylsilyl, -OR¹⁴, -OC(O)-R¹⁴, -N(R¹⁴)₂, -C(O)R¹⁴, -C(O)OR¹⁴,
- 30 -C(O)N(R¹⁴)₂, -N(R¹⁴)C(O)OR¹⁴, -N(R¹⁴)C(O)R¹⁴, -N(R¹⁴)S(O)_tR¹⁴ (where t is 1 or 2), -S(O)_tOR¹⁴ (where t is 1 or 2), -S(O)_pR¹⁴ (where p is 0, 1 or 2), and -S(O)_tN(R¹⁴)₂ (where t is 1 or 2) where each R¹⁴ is independently hydrogen, alkyl, haloalkyl, cycloalkyl, cycloalkylalkyl, aryl (optionally substituted with one or more halo groups), aralkyl, heterocyclyl, heterocylalkyl, heteroaryl or heteroarylalkyl;
- 35 and

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- (2) the aryl part of the aralkyl radical is optionally substituted with one or more substituents selected from the group consisting of alkyl, alkenyl, alkynyl, halo, haloalkyl, haloalkenyl, haloalkynyl, cyano, nitro, aryl, aralkyl, aralkenyl, aralkynyl, cycloalkyl, cycloalkylalkyl, cycloalkylalkenyl, cycloalkylalkynyl, heterocyclyl, heterocyclylalkyl, heterocyclylalkenyl, heterocyclylalkynyl, heteroaryl, heteroarylalkyl, heteroarylalkenyl, heteroarylalkynyl, $-R^{15}-OR^{14}$, $-R^{15}-OC(O)-R^{14}$, $-R^{15}-N(R^{14})_2$, $-R^{15}-C(O)R^{14}$, $-R^{15}-C(O)OR^{14}$, $-R^{15}-C(O)N(R^{14})_2$, $-R^{15}-O-R^{16}-C(O)N(R^{14})_2$, $-R^{15}-N(R^{14})C(O)OR^{14}$, $-R^{15}-N(R^{14})C(O)R^{14}$, $-R^{15}-N(R^{14})S(O)_tR^{14}$ (where t is 1 or 2), $-R^{15}-S(O)_tOR^{14}$ (where t is 1 or 2), $-R^{15}-S(O)_pR^{14}$ (where p is 0, 1 or 2), and $-R^{15}-S(O)_tN(R^{14})_2$ (where t is 1 or 2), where each R^{14} is independently hydrogen, alkyl, haloalkyl, cycloalkyl, cycloalkylalkyl, aryl, aralkyl, heterocyclyl, heterocyclylalkyl, heteroaryl or heteroarylalkyl, each R^{15} is independently a direct bond or a straight or branched alkylene or alkenylene chain, and R^{16} is a straight or branched alkylene or alkenylene chain;
- e) heteroaryl optionally substituted with one or more substituents selected from the group consisting of alkyl, oxo, and $-R^8-OR^{10}$; or
- f) heteroarylalkenyl where the heteroaryl part of the heteroarylalkyl radical is optionally substituted with one or more substituents selected from the group consisting of alkyl, halo, haloalkyl, aryl and aralkyl;
- R^6 and R^7 are each independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, haloalkyl, haloalkenyl, haloalkynyl, hydroxyalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted aralkenyl, optionally substituted aralkynyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted cycloalkylalkenyl, optionally substituted cycloalkylalkynyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heterocyclylalkenyl, optionally substituted heterocyclylalkynyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, optionally substituted heteroarylalkenyl, optionally substituted heteroarylalkynyl, $-R^9-OR^{10}$, $-R^9-CN$, $-R^9-NO_2$, $-R^9-N(R^{10})_2$, $-R^9-C(O)OR^{10}$ and $-R^9-C(O)N(R^{10})_2$;
- optionally, R^6 and R^7 , together with the nitrogen to which they are attached, form an optionally substituted *N*-heteroaryl or an optionally substituted *N*-heterocyclyl;
- each R^8 is independently selected from the group consisting of a direct bond, an optionally substituted straight or branched alkylene chain, an optionally

substituted straight or branched alkenylene chain and an optionally substituted straight or branched alkynylene chain;

each R^9 is independently selected from the group consisting of an optionally substituted straight or branched alkylene chain, an optionally substituted straight or branched alkenylene chain and an optionally substituted straight or branched alkynylene chain; and

each R^{10} is independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, haloalkyl, haloalkenyl, haloalkynyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted aralkenyl, optionally substituted aralkynyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted cycloalkylalkenyl, optionally substituted cycloalkylalkynyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heterocyclylalkenyl, optionally substituted heterocyclylalkynyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, optionally substituted heteroarylalkenyl, optionally substituted heteroarylalkynyl.

Another embodiment of the compounds of formula (Ia) are compounds of formula (Ia) wherein:

A is $-C(O)-$;

R^1 is cycloalkyl optionally substituted with one or more substituents selected from the group consisting of halo, haloalkyl, alkyl, oxo, $-R^8-OR^{10}$, $-R^8-C(O)OR^{10}$, $-R^8-C(O)N(R^6)R^7$, $-R^8-S(O)_pR^{10}$ (where p is 0, 1 or 2) and $-R^8-N(R^6)R^7$; R^2 , R^4 and R^5 are each hydrogen;

R^3 is alkyl optionally substituted with one or more substituents selected from the group consisting of halo, cyano, nitro, oxo, thioxo, trimethylsilanyl, $-OR^{14}$, $-OC(O)-R^{14}$, $-N(R^{14})_2$, $-C(O)R^{14}$, $-C(O)OR^{14}$, $-C(O)N(R^{14})_2$, $-N(R^{14})C(O)OR^{14}$, $-N(R^{14})C(O)R^{14}$, $-N(R^{14})S(O)_tR^{14}$ (where t is 1 or 2), $-S(O)_tOR^{14}$ (where t is 1 or 2), $-S(O)_pR^{14}$ (where p is 0, 1 or 2), and $-S(O)_tN(R^{14})_2$ (where t is 1 or 2) where each R^{14} is independently hydrogen, alkyl, haloalkyl, cycloalkyl, cycloalkylalkyl, aryl (optionally substituted with one or more halo groups), aralkyl, heterocyclyl, heterocyclylalkyl, heteroaryl or heteroarylalkyl;

or R^3 is phenyl substituted with one or more substituents selected from the group consisting of alkyl, halo, haloalkyl, nitro, cycloalkyl, cycloalkylalkyl, optionally substituted aryl, optionally substituted heteroaryl, optionally substituted heterocyclyl, $-R^8-OR^{10}$, $-R^8-C(O)OR^{10}$, $-R^8-OC(O)R^{10}$, $-R^8-O-R^9-C(O)OR^{10}$,

$-R^8-O-R^9-C(O)N(R^6)R^7$, $-S(O)_pR^6$ (where p is 0, 1 or 2), $-S(O)_tN(R^6)R^7$ (where t is 1 or 2), $-R^8-N(R^6)R^7$, $-R^8-N(R^6)C(O)R^{10}$ and $-R^8-CN$;

or R^3 is heteroaryl optionally substituted with one or more substituents selected from the group consisting of alkyl, oxo, and $-R^8-OR^{10}$;

5 R^6 and R^7 are each independently selected from the group consisting of hydrogen, alkyl, haloalkyl, hydroxyalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, $-R^9-OR^{10}$,
10 $-R^9-CN$, $-R^9-NO_2$, $-R^9-N(R^{10})_2$, $-R^9-C(O)OR^{10}$ and $-R^9-C(O)N(R^{10})_2$;

each R^8 is independently selected from the group consisting of a direct bond, an optionally substituted straight or branched alkylene chain or an optionally substituted straight or branched alkenylene chain;

each R^9 is independently selected from the group consisting of an optionally substituted
15 straight or branched alkylene chain or an optionally substituted straight or branched alkenylene chain; and

each R^{10} is independently selected from the group consisting of hydrogen, alkyl, haloalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted
20 heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heteroaryl, or optionally substituted heteroarylalkyl.

Of this embodiment, a specific embodiment is a compound of formula (Ia) selected from the group consisting of:

5-amino-1-(4-(*tert*-butoxy)phenyl)carbonyl-3-[(5-(aminocarbonyl)bicyclo[2.2.1]hept-2-en-
25 6-yl)amino]-1H-1,2,4-triazole;

5-amino-1-(3-(*tert*-butoxy)phenyl)carbonyl-3-[(5-(aminocarbonyl)bicyclo[2.2.1]hept-2-en-
6-yl)amino]-1H-1,2,4-triazole;

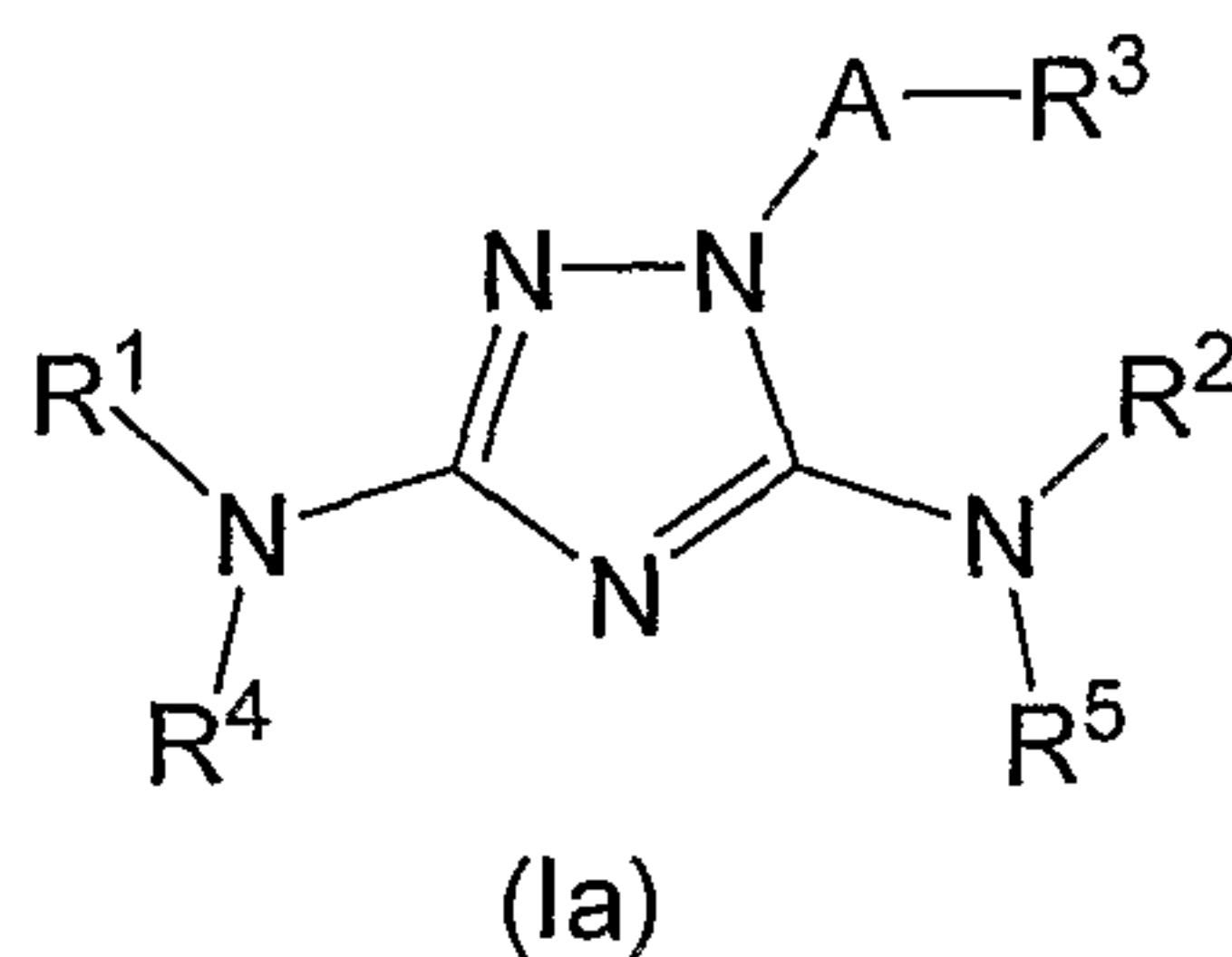
5-amino-1-(4-(dimethylamino)phenyl)carbonyl-3-[(5-(aminocarbonyl)bicyclo[2.2.1]hept-2-en-6-yl)amino]-1H-1,2,4-triazole;

30 5-amino-1-(3-(dimethylamino)phenyl)carbonyl-3-[(5-(aminocarbonyl)bicyclo[2.2.1]hept-2-en-6-yl)amino]-1H-1,2,4-triazole;

5-amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-3-[(5-(aminocarbonyl)bicyclo[2.2.1]hept-2-en-6-yl)amino]-1H-1,2,4-triazole; and

35 5-amino-1-(1H-indol-6-yl)carbonyl-3-[(5-(aminocarbonyl)bicyclo[2.2.1]hept-2-en-6-yl)amino]-1H-1,2,4-triazole.

Another embodiment of the various aspects of the invention set forth above in the Summary of the Invention are compounds of formula (Ia):



wherein:

5 A is -C(O)O-, -C(O)N(R⁶)- or -C(S)N(R⁶)-;

R¹ is one of the following:

- 10 a) aryl substituted with one or more substituents selected from the group consisting of halo, haloalkyl, alkyl, optionally substituted heteroaryl, optionally substituted heterocyclyl, -R⁸-OR¹⁰, -R⁸-O-R⁹-OR¹⁰, -R⁸-O-R⁹-O-R⁹-OR¹⁰,
 -R⁸-O-R⁹-CN, -R⁸-O-R⁹-C(O)OR¹⁰, -R⁸-O-R⁹-C(O)N(R⁶)R⁷, -R⁸-O-R⁹-S(O)_pR⁶
 (where p is 0, 1 or 2), -R⁸-O-R⁹-N(R⁶)R⁷, -R⁸-O-R⁹-C(NR¹¹)N(R¹¹)H, and
 -R⁸-N(R⁶)C(O)R¹⁰; or
 b) heteroaryl optionally substituted with one or more substituents selected
 from the group consisting of alkyl, halo, oxo, -R⁸-OR¹⁰, -R⁸-C(O)OR¹⁰, -R⁸-
 15 C(O)N(R⁶)R⁷ and -R⁸-N(R⁶)R⁷;

R², R⁴ and R⁵ are each hydrogen;

R³ is one of the following:

- 20 a) alkyl optionally substituted with one or more substituents selected from the group consisting of halo, cyano, nitro, oxo, thioxo, trimethylsilyl, -OR¹⁴,
 -OC(O)-R¹⁴, -N(R¹⁴)₂, -C(O)R¹⁴, -C(O)OR¹⁴, -C(O)N(R¹⁴)₂, -N(R¹⁴)C(O)OR¹⁴,
 -N(R¹⁴)C(O)R¹⁴, -N(R¹⁴)S(O)_tR¹⁴ (where t is 1 or 2), -S(O)_tOR¹⁴ (where t is 1 or 2),
 -S(O)_pR¹⁴ (where p is 0, 1 or 2), and -S(O)_tN(R¹⁴)₂ (where t is 1 or 2) where each
 R¹⁴ is independently hydrogen, alkyl, haloalkyl, cycloalkyl, cycloalkylalkyl, aryl
 (optionally substituted with one or more halo groups), aralkyl, heterocyclyl,
 25 heterocylalkyl, heteroaryl or heteroarylalkyl;
 b) cycloalkyl optionally substituted with one or more substituents selected
 from the group consisting of -R⁸-OR¹⁰, alkyl, halo, haloalkyl, aryl, and aralkyl;
 c) aryl substituted with one or more substituents selected from the group
 consisting of alkyl, halo, haloalkyl, nitro, cycloalkyl, cycloalkylalkyl, -R⁸-OR¹⁰,

-R⁸-C(O)OR¹⁰, -R⁸-OC(O)R¹⁰, -R⁸-O-R⁹-C(O)OR¹⁰, -R⁸-O-R⁹-C(O)N(R⁶)R⁷,
 -S(O)_pR⁶ (where p is 0, 1 or 2), -S(O)_tN(R⁶)R⁷ (where t is 1 or 2), -R⁸-N(R⁶)R⁷,
 -R⁸-N(R⁶)C(O)R¹⁰ and -R⁸-CN;

d) aralkyl, wherein:

5 (1) the alkyl part of the aralkyl radical is optionally substituted with one or more substituents selected from the group consisting of halo, cyano, nitro, oxo, thioxo, trimethylsilanyl, -OR¹⁴, -OC(O)-R¹⁴, -N(R¹⁴)₂, -C(O)R¹⁴, -C(O)OR¹⁴,
 -C(O)N(R¹⁴)₂, -N(R¹⁴)C(O)OR¹⁴, -N(R¹⁴)C(O)R¹⁴, -N(R¹⁴)S(O)_tR¹⁴ (where t is 1 or 2),
 10 -S(O)_tOR¹⁴ (where t is 1 or 2), -S(O)_pR¹⁴ (where p is 0, 1 or 2), and
 -S(O)_tN(R¹⁴)₂ (where t is 1 or 2) where each R¹⁴ is independently hydrogen, alkyl, haloalkyl, cycloalkyl, cycloalkylalkyl, aryl (optionally substituted with one or more halo groups), aralkyl, heterocyclyl, heterocyclalkyl, heteroaryl or heteroarylalkyl;
 and

(2) the aryl part of the aralkyl radical is optionally substituted with one
 15 or more substituents selected from the group consisting of alkyl, alkenyl, alkynyl, halo, haloalkyl, haloalkenyl, haloalkynyl, cyano, nitro, aryl, aralkyl, aralkenyl, aralkynyl, cycloalkyl, cycloalkylalkyl, cycloalkylalkenyl, cycloalkylalkynyl, heterocyclyl, heterocyclalkyl, heterocyclalkenyl, heterocyclalkynyl, heteroaryl, heteroarylalkyl, heteroarylalkenyl, heteroarylalkynyl, -R¹⁵-OR¹⁴,
 20 -R¹⁵-OC(O)-R¹⁴, -R¹⁵-N(R¹⁴)₂, -R¹⁵-C(O)R¹⁴, -R¹⁵-C(O)OR¹⁴, -R¹⁵-C(O)N(R¹⁴)₂,
 -R¹⁵-O-R¹⁶-C(O)N(R¹⁴)₂, -R¹⁵-N(R¹⁴)C(O)OR¹⁴, -R¹⁵-N(R¹⁴)C(O)R¹⁴,
 -R¹⁵-N(R¹⁴)S(O)_tR¹⁴ (where t is 1 or 2), -R¹⁵-S(O)_tOR¹⁴ (where t is 1 or 2),
 -R¹⁵-S(O)_pR¹⁴ (where p is 0, 1 or 2), and -R¹⁵-S(O)_tN(R¹⁴)₂ (where t is 1 or 2),
 where each R¹⁴ is independently hydrogen, alkyl, haloalkyl, cycloalkyl,
 25 cycloalkylalkyl, aryl, aralkyl, heterocyclyl, heterocyclalkyl, heteroaryl or heteroarylalkyl, each R¹⁵ is independently a direct bond or a straight or branched alkylene or alkenylene chain, and R¹⁶ is a straight or branched alkylene or alkenylene chain;

e) heteroaryl optionally substituted with one or more substituents selected
 30 from the group consisting of alkyl, oxo, and -R⁸-OR¹⁰; or

f) heteroarylalkenyl where the heteroaryl part of the heteroarylalkyl radical is optionally substituted with one or more substituents selected from the group consisting of alkyl, halo, haloalkyl, aryl and aralkyl;

R⁶ and R⁷ are each independently selected from the group consisting of hydrogen, alkyl,
 35 alkenyl, alkynyl, haloalkyl, haloalkenyl, haloalkynyl, hydroxyalkyl, optionally

substituted aryl, optionally substituted aralkyl, optionally substituted aralkenyl, optionally substituted aralkynyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted cycloalkylalkenyl, optionally substituted cycloalkylalkynyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heterocyclylalkenyl, optionally substituted heterocyclylalkynyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, optionally substituted heteroarylalkenyl, optionally substituted heteroarylalkynyl, $-R^9-OR^{10}$, $-R^9-CN$, $-R^9-NO_2$, $-R^9-N(R^{10})_2$, $-R^9-C(O)OR^{10}$ and $-R^9-C(O)N(R^{10})_2$;

each R^8 is independently selected from the group consisting of a direct bond, an optionally substituted straight or branched alkylene chain, an optionally substituted straight or branched alkenylene chain and an optionally substituted straight or branched alkynylene chain;

each R^9 is independently selected from the group consisting of an optionally substituted straight or branched alkylene chain, an optionally substituted straight or branched alkenylene chain and an optionally substituted straight or branched alkynylene chain; and

each R^{10} is independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, haloalkyl, haloalkenyl, haloalkynyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted aralkenyl, optionally substituted aralkynyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted cycloalkylalkenyl, optionally substituted cycloalkylalkynyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heterocyclylalkenyl, optionally substituted heterocyclylalkynyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, optionally substituted heteroarylalkenyl, optionally substituted heteroarylalkynyl; and

each R^{11} is hydrogen, alkyl, cyano, nitro or $-OR^{10}$.

Another embodiment of the compounds of formula (Ia) are compounds of formula (Ia) wherein:

A is $-C(O)O-$, $-C(O)N(R^6)-$ or $-C(S)N(R^6)-$;

R^1 is aryl substituted with one or more substituents selected from the group consisting of halo, haloalkyl, alkyl, optionally substituted heteroaryl, optionally substituted heterocyclyl, $-R^8-OR^{10}$, $-R^8-O-R^9-OR^{10}$, $-R^8-O-R^9-O-R^9-OR^{10}$, $-R^8-O-R^9-CN$, $-R^8-O-R^9-C(O)OR^{10}$, $-R^8-O-R^9-C(O)N(R^6)R^7$, $-R^8-O-R^9-S(O)_pR^6$ (where p is 0, 1 or

2), $-R^8-O-R^9-N(R^6)R^7$, $-R^8-O-R^9-C(NR^{11})N(R^{11})H$, and $-R^8-N(R^6)C(O)R^{10}$;

R^2 , R^4 and R^5 are each hydrogen;

R^3 is cycloalkyl optionally substituted with one or more substituents selected from the group consisting of $-R^8-OR^{10}$, alkyl, halo, haloalkyl, aryl, and aralkyl;

- 5 or R^3 is phenyl substituted with one or more substituents selected from the group consisting of alkyl, halo, haloalkyl, nitro, cycloalkyl, cycloalkylalkyl, $-R^8-OR^{10}$, $-R^8-C(O)OR^{10}$, $-R^8-OC(O)R^{10}$, $-R^8-O-R^9-C(O)OR^{10}$, $-R^8-O-R^9-C(O)N(R^6)R^7$, $-S(O)_pR^6$ (where p is 0, 1 or 2), $-S(O)_tN(R^6)R^7$ (where t is 1 or 2), $-R^8-N(R^6)R^7$, $-R^8-N(R^6)C(O)R^{10}$, and $-R^8-CN$;
- 10 or R^3 is heteroaryl optionally substituted with one or more substituents selected from the group consisting of alkyl, oxo, and $-R^8-OR^{10}$;

R^6 and R^7 are each independently selected from the group consisting of hydrogen, alkyl, haloalkyl, hydroxyalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted heterocyclyl, optionally substituted heterocyclalkyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, $-R^9-OR^{10}$, $-R^9-CN$, $-R^9-NO_2$, $-R^9-N(R^{10})_2$, $-R^9-C(O)OR^{10}$ and $-R^9-C(O)N(R^{10})_2$;

each R^8 is independently selected from the group consisting of a direct bond, an optionally substituted straight or branched alkylene chain or an optionally substituted straight or branched alkenylene chain;

each R^9 is independently selected from the group consisting of an optionally substituted straight or branched alkylene chain or an optionally substituted straight or branched alkenylene chain;

each R^{10} is independently selected from the group consisting of hydrogen, alkyl, haloalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted heterocyclyl, optionally substituted heterocyclalkyl, optionally substituted heteroaryl, or optionally substituted heteroarylalkyl; and

each R^{11} is hydrogen, alkyl, cyano, nitro or $-OR^{10}$.

Of this embodiment, a specific embodiment is a compound of formula (Ia) selected from the group consisting of:

5-amino-N-(4-chlorophenyl)-3-[4-(methoxy)phenylamino]-1H-1,2,4-triazole-1-carboxamide;

5-amino-N-(3,5-(dimethyl)phenyl)-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole-1-carboxamide;

10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

5-amino-N-(4-(dimethylamino)phenyl)-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-
1,2,4-triazole-1-carboxamide;

5-amino-3-(4-methoxyphenyl)amino-1-(*tert*-butoxycarbonyl)-1H-1,2,4-triazole;

3-[4-(acetyl(methyl)amino)phenyl]amino-5-amino-N-(4-chlorophenyl)-1H-1,2,4-triazole-1-
5 carboxamide;

3-[4-(acetyl(methyl)amino)phenyl]amino-5-amino-N-(1,3-benzodioxol-5-yl)-1H-1,2,4-
triazole-1-carboxamide;

3-[4-(acetyl(methyl)amino)phenyl]amino-5-amino-N-cyclopentyl-1H-1,2,4-triazole-1-
carboxamide;

10 3-[4-(acetyl(methyl)amino)phenyl]amino-5-amino-N-(4-(*iso*-propyl)phenyl)-1H-1,2,4-
triazole-1-carboxamide;

3-[4-(acetyl(methyl)amino)phenyl]amino-5-amino-N-(4-(butoxy)phenyl)-1H-1,2,4-triazole-
1-carboxamide;

15 5-amino-N-(4-(*iso*-propyl)phenyl)-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-
triazole-1-carboxamide;

5-amino-N-(4-butoxyphenyl)-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-
triazole-1-carboxamide;

5-amino-N-(4-methylphenyl)-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-
triazole-1-carboxamide;

20 5-amino-N-(4-(methoxy)phenyl)-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-
triazole-1-carboxamide;

3-[4-(acetyl(methyl)amino)phenyl]amino-5-amino-N-cyclohexyl-1H-1,2,4-triazole-1-
carboxamide;

25 5-amino-N-(1,3-benzodioxol-5-yl)-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-
triazole-1-carboxamide;

5-amino-N-(3-methylphenyl)-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-
triazole-1-carboxamide;

5-amino-N-(3-methoxyphenyl)-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-
triazole-1-carboxamide;

30 5-amino-N-(3,5-(dimethoxy)phenyl)-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-
triazole-1-carboxamide;

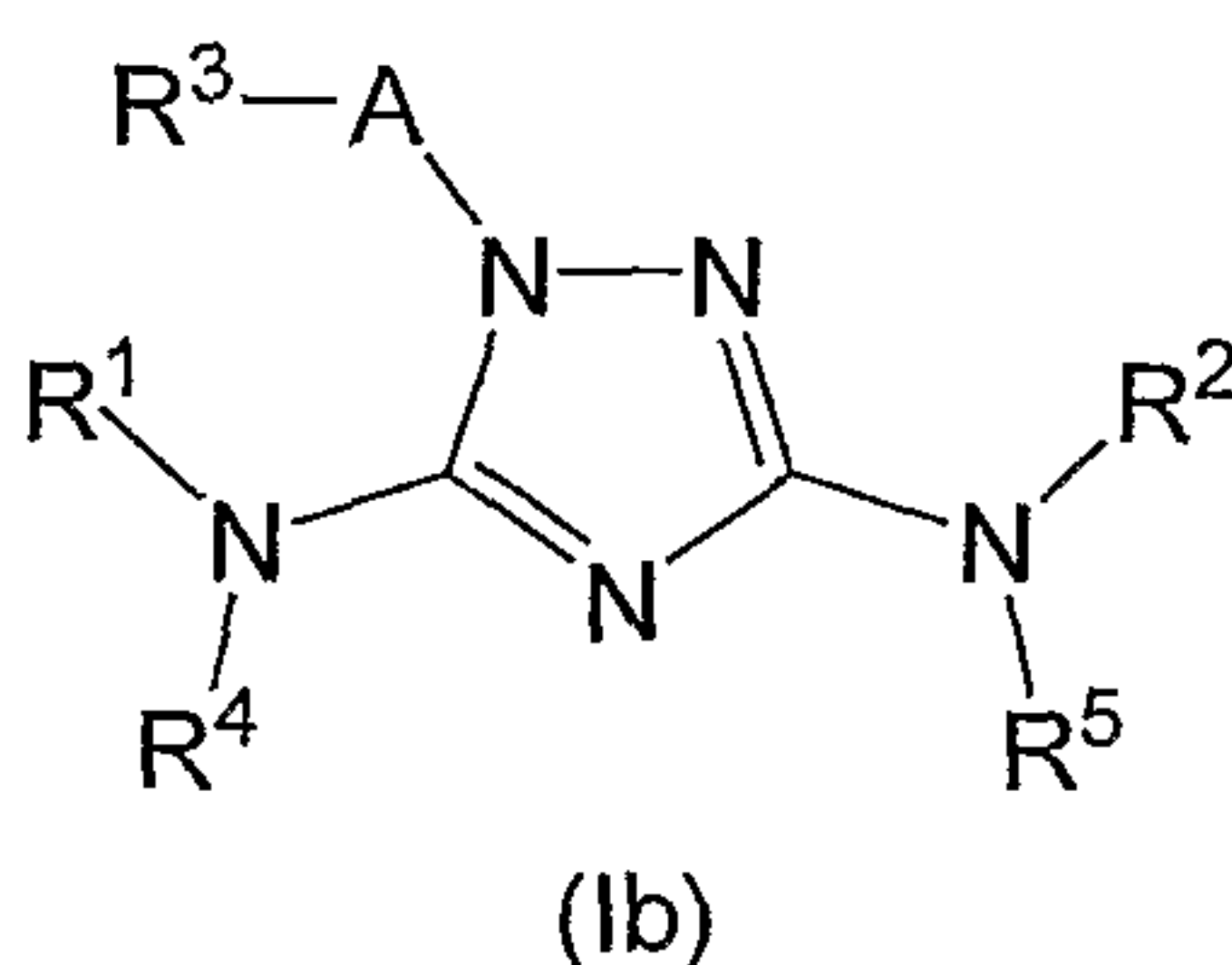
5-amino-N-cyclohexyl-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole-1-
carboxamide;

35 5-amino-N-cyclopentyl-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole-1-
carboxamide;

It is to be understood that the following examples are illustrative only and are not intended to limit the scope of the invention.

- 5-amino-N-(4-methylphenyl)-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole-1-carboxamide;
- 5-amino-N-(3-methoxyphenyl)-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole-1-carboxamide;
- 5 5-amino-N-(4-cyanophenyl)-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole-1-carboxamide;
- 5-amino-N-(1,3-benzodioxol-5-yl)-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole-1-carboxamide;
- 5-amino-N-(3-methylphenyl)-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole-1-carboxamide;
- 10 5-amino-N-(3,5-(dimethoxy)phenyl)-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole-1-carboxamide;
- 5-amino-N-(3,4-(dimethoxy)phenyl)-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole-1-carboxamide;
- 15 5-amino-N-(3,4-(dimethyl)phenyl)-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole-1-carboxamide;
- 5-amino-3-[4-(piperidin-1-yl)phenylamino]-1-(*tert*-butoxycarbonyl)-1H-1,2,4-triazole;
- 5-amino-N-(2,4,6-trifluorophenyl)-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole-1-carbothioamide; and
- 20 5-amino-N-(2,6-difluorophenyl)-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole-1-carbothioamide.

Another embodiment of the various aspects of the invention set forth above in the Summary of the Invention are compounds of formula (Ib):



25 wherein:

A is -C(O)-;

R¹ is one of the following:

- a) aryl substituted with one or more substituents selected from the group consisting of halo, haloalkyl, alkyl, optionally substituted heteroaryl, optionally

substituted heterocyclyl, $-R^8-OR^{10}$, $-R^8-O-R^9-OR^{10}$, $-R^8-O-R^9-O-R^9-OR^{10}$,
 $-R^8-O-R^9-CN$, $-R^8-O-R^9-C(O)OR^{10}$, $-R^8-O-R^9-C(O)N(R^6)R^7$, $-R^8-O-R^9-S(O)_pR^6$
 (where p is 0, 1 or 2), $-R^8-O-R^9-N(R^6)R^7$, $-R^8-O-R^9-C(NR^{11})N(R^{11})H$, and
 $-R^8-N(R^6)C(O)R^{10}$; or

- 5 b) heteroaryl optionally substituted with one or more substituents selected from the group consisting of alkyl, halo, oxo, $-R^8-OR^{10}$, $-R^8-C(O)OR^{10}$, $-R^8-C(O)N(R^6)R^7$ and $-R^8-N(R^6)R^7$; or
- c) heterocyclyl optionally substituted with one or more substituents selected from the group consisting of halo, haloalkyl, alkyl, oxo, $-R^8-OR^{10}$, $-R^8-C(O)OR^{10}$,
 10 $-R^8-C(O)N(R^6)R^7$, $-R^8-S(O)_pR^{10}$ (where p is 0, 1 or 2) and $-R^8-N(R^6)R^7$;
- d) heterocyclylalkyl optionally substituted with one or more substituents selected from the group consisting of halo, haloalkyl, alkyl, optionally substituted aryl, optionally substituted aralkyl, $-R^8-OR^{10}$, $-R^8-C(O)OR^{10}$, $-R^8-C(O)N(R^6)R^7$ and $-R^8-N(R^6)R^7$; or
- 15 e) cycloalkyl optionally substituted with one or more substituents selected from the group consisting of halo, haloalkyl, alkyl, oxo, $-R^8-OR^{10}$, $-R^8-C(O)OR^{10}$, $-R^8-C(O)N(R^6)R^7$, $-R^8-S(O)_pR^{10}$ (where p is 0, 1 or 2) and $-R^8-N(R^6)R^7$;

R^2 is hydrogen, alkyl or $-C(O)R^{10}$;

R^4 and R^5 are each hydrogen or alkyl;

20 R^3 is one of the following:

- a) alkyl optionally substituted with one or more substituents selected from the group consisting of halo, cyano, nitro, oxo, thioxo, trimethylsilyl, $-OR^{14}$, $-OC(O)-R^{14}$, $-N(R^{14})_2$, $-C(O)R^{14}$, $-C(O)OR^{14}$, $-C(O)N(R^{14})_2$, $-N(R^{14})C(O)OR^{14}$, $-N(R^{14})C(O)R^{14}$, $-N(R^{14})S(O)_tR^{14}$ (where t is 1 or 2), $-S(O)_tOR^{14}$ (where t is 1 or 2),
 25 $-S(O)_pR^{14}$ (where p is 0, 1 or 2), and $-S(O)_tN(R^{14})_2$ (where t is 1 or 2) where each R^{14} is independently hydrogen, alkyl, haloalkyl, cycloalkyl, cycloalkylalkyl, aryl (optionally substituted with one or more halo groups), aralkyl, heterocyclyl, heterocyclylalkyl, heteroaryl or heteroarylalkyl;
- b) cycloalkyl optionally substituted with one or more substituents selected from the group consisting of $-R^8-OR^{10}$, alkyl, halo, haloalkyl, aryl, and aralkyl;
- 30 c) aryl substituted with one or more substituents selected from the group consisting of alkyl, halo, haloalkyl, nitro, cycloalkyl, cycloalkylalkyl, optionally substituted aryl, optionally substituted heteroaryl, optionally substituted heterocyclyl, $-R^8-OR^{10}$, $-R^8-C(O)OR^{10}$, $-R^8-OC(O)R^{10}$, $-R^8-O-R^9-C(O)OR^{10}$,
 35 $-R^8-O-R^9-C(O)N(R^6)R^7$, $-S(O)_pR^6$ (where p is 0, 1 or 2), $-S(O)_tN(R^6)R^7$ (where t is

1 or 2), $-R^8-N(R^6)R^7$, $-R^8-N(R^6)C(O)R^{10}$ and $-R^8-CN$;

d) aralkyl, wherein:

(1) the alkyl part of the aralkyl radical is optionally substituted with one or more substituents selected from the group consisting of halo, cyano, nitro, oxo, thioxo, trimethylsilanyl, $-OR^{14}$, $-OC(O)-R^{14}$, $-N(R^{14})_2$, $-C(O)R^{14}$, $-C(O)OR^{14}$, $-C(O)N(R^{14})_2$, $-N(R^{14})C(O)OR^{14}$, $-N(R^{14})C(O)R^{14}$, $-N(R^{14})S(O)_tR^{14}$ (where t is 1 or 2), $-S(O)_tOR^{14}$ (where t is 1 or 2), $-S(O)_pR^{14}$ (where p is 0, 1 or 2), and $-S(O)_tN(R^{14})_2$ (where t is 1 or 2) where each R^{14} is independently hydrogen, alkyl, haloalkyl, cycloalkyl, cycloalkylalkyl, aryl (optionally substituted with one or more halo groups), aralkyl, heterocyclyl, heterocyclalkyl, heteroaryl or heteroarylalkyl; and

(2) the aryl part of the aralkyl radical is optionally substituted with one or more substituents selected from the group consisting of alkyl, alkenyl, alkynyl, halo, haloalkyl, haloalkenyl, haloalkynyl, cyano, nitro, aryl, aralkyl, aralkenyl, aralkynyl, cycloalkyl, cycloalkylalkyl, cycloalkylalkenyl, cycloalkylalkynyl, heterocyclyl, heterocyclalkyl, heterocyclalkenyl, heterocyclalkynyl, heteroaryl, heteroarylalkyl, heteroarylalkenyl, heteroarylalkynyl, $-R^{15}-OR^{14}$, $-R^{15}-OC(O)-R^{14}$, $-R^{15}-N(R^{14})_2$, $-R^{15}-C(O)R^{14}$, $-R^{15}-C(O)OR^{14}$, $-R^{15}-C(O)N(R^{14})_2$, $-R^{15}-O-R^{16}-C(O)N(R^{14})_2$, $-R^{15}-N(R^{14})C(O)OR^{14}$, $-R^{15}-N(R^{14})C(O)R^{14}$, $-R^{15}-N(R^{14})S(O)_tR^{14}$ (where t is 1 or 2), $-R^{15}-S(O)_tOR^{14}$ (where t is 1 or 2), $-R^{15}-S(O)_pR^{14}$ (where p is 0, 1 or 2), and $-R^{15}-S(O)_tN(R^{14})_2$ (where t is 1 or 2), where each R^{14} is independently hydrogen, alkyl, haloalkyl, cycloalkyl, cycloalkylalkyl, aryl, aralkyl, heterocyclyl, heterocyclalkyl, heteroaryl or heteroarylalkyl, each R^{15} is independently a direct bond or a straight or branched alkylene or alkenylene chain, and R^{16} is a straight or branched alkylene or alkenylene chain;

e) heteroaryl optionally substituted with one or more substituents selected from the group consisting of alkyl, oxo, and $-R^8-OR^{10}$; or

f) heteroarylalkenyl where the heteroaryl part of the heteroarylalkyl radical is optionally substituted with one or more substituents selected from the group consisting of alkyl, halo, haloalkyl, aryl and aralkyl;

R^6 and R^7 are each independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, haloalkyl, haloalkenyl, haloalkynyl, hydroxyalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted aralkenyl, optionally substituted aralkynyl, optionally substituted cycloalkyl, optionally

substituted cycloalkylalkyl, optionally substituted cycloalkylalkenyl, optionally substituted cycloalkylalkynyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heterocyclylalkenyl, optionally substituted heterocyclylalkynyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, optionally substituted heteroarylalkenyl, optionally substituted heteroarylalkynyl, $-R^9-OR^{10}$, $-R^9-CN$, $-R^9-NO_2$, $-R^9-N(R^{10})_2$, $-R^9-C(O)OR^{10}$ and $-R^9-C(O)N(R^{10})_2$;

optionally, R^6 and R^7 , together with the nitrogen to which they are attached, form an optionally substituted *N*-heteroaryl or an optionally substituted *N*-heterocyclyl;

each R^8 is independently selected from the group consisting of a direct bond, an optionally substituted straight or branched alkylene chain, an optionally substituted straight or branched alkenylene chain and an optionally substituted straight or branched alkynylene chain;

each R^9 is independently selected from the group consisting of an optionally substituted straight or branched alkylene chain, an optionally substituted straight or branched alkenylene chain and an optionally substituted straight or branched alkynylene chain; and

each R^{10} is independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, haloalkyl, haloalkenyl, haloalkynyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted aralkenyl, optionally substituted aralkynyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted cycloalkylalkenyl, optionally substituted cycloalkylalkynyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heterocyclylalkenyl, optionally substituted heterocyclylalkynyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, optionally substituted heteroarylalkenyl, optionally substituted heteroarylalkynyl; and

each R^{11} is hydrogen, alkyl, cyano, nitro or $-OR^{10}$.

Another embodiment of the compounds of formula (Ib) are compounds of formula

(Ib) wherein:

A is $-C(O)-$;

R^1 is one of the following:

a) aryl substituted with one or more substituents selected from the group consisting of halo, haloalkyl, alkyl, optionally substituted heteroaryl, optionally substituted heterocyclyl, $-R^8-OR^{10}$, $-R^8-O-R^9-OR^{10}$, $-R^8-O-R^9-O-R^9-OR^{10}$,

It is to be understood that the following description is intended to be illustrative only and is not intended to limit the scope of the invention.

$-R^8-O-R^9-CN$, $-R^8-O-R^9-C(O)OR^{10}$, $-R^8-O-R^9-C(O)N(R^6)R^7$, $-R^8-O-R^9-S(O)_pR^6$ (where p is 0, 1 or 2), $-R^8-O-R^9-N(R^6)R^7$, $-R^8-O-R^9-C(NR^{11})N(R^{11})H$, and $-R^8-N(R^6)C(O)R^{10}$; or

b) heteroaryl optionally substituted with one or more substituents selected from the group consisting of alkyl, halo, oxo, $-R^8-OR^{10}$, $-R^8-C(O)OR^{10}$, $-R^8-C(O)N(R^6)R^7$ and $-R^8-N(R^6)R^7$; or

c) heterocyclyl optionally substituted with one or more substituents selected from the group consisting of halo, haloalkyl, alkyl, oxo, $-R^8-OR^{10}$, $-R^8-C(O)OR^{10}$, $-R^8-C(O)N(R^6)R^7$, $-R^8-S(O)_pR^{10}$ (where p is 0, 1 or 2) and $-R^8-N(R^6)R^7$;

d) heterocyclylalkyl optionally substituted with one or more substituents selected from the group consisting of halo, haloalkyl, alkyl, optionally substituted aryl, optionally substituted aralkyl, $-R^8-OR^{10}$, $-R^8-C(O)OR^{10}$, $-R^8-C(O)N(R^6)R^7$ and $-R^8-N(R^6)R^7$; or

e) cycloalkyl optionally substituted with one or more substituents selected from the group consisting of halo, haloalkyl, alkyl, oxo, $-R^8-OR^{10}$, $-R^8-C(O)OR^{10}$, $-R^8-C(O)N(R^6)R^7$, $-R^8-S(O)_pR^{10}$ (where p is 0, 1 or 2) and $-R^8-N(R^6)R^7$;

R^2 is hydrogen, alkyl or $-C(O)R^{10}$;

R^4 and R^5 are each hydrogen or alkyl;

R^3 is one of the following:

a) alkyl optionally substituted with one or more substituents selected from the group consisting of halo, cyano, nitro, oxo, thioxo, trimethylsilyl, $-OR^{14}$, $-OC(O)-R^{14}$, $-N(R^{14})_2$, $-C(O)R^{14}$, $-C(O)OR^{14}$, $-C(O)N(R^{14})_2$, $-N(R^{14})C(O)OR^{14}$, $-N(R^{14})C(O)R^{14}$, $-N(R^{14})S(O)_tR^{14}$ (where t is 1 or 2), $-S(O)_tOR^{14}$ (where t is 1 or 2), $-S(O)_pR^{14}$ (where p is 0, 1 or 2), and $-S(O)_tN(R^{14})_2$ (where t is 1 or 2) where each R^{14} is independently hydrogen, alkyl, haloalkyl, cycloalkyl, cycloalkylalkyl, aryl (optionally substituted with one or more halo groups), aralkyl, heterocyclyl, heterocyclylalkyl, heteroaryl or heteroarylalkyl;

b) cycloalkyl optionally substituted with one or more substituents selected from the group consisting of $-R^8-OR^{10}$, alkyl, halo, haloalkyl, aryl, and aralkyl;

c) aryl substituted with one or more substituents selected from the group consisting of alkyl, halo, haloalkyl, nitro, cycloalkyl, cycloalkylalkyl, optionally substituted aryl, optionally substituted heteroaryl, optionally substituted heterocyclyl, $-R^8-OR^{10}$, $-R^8-C(O)OR^{10}$, $-R^8-OC(O)R^{10}$, $-R^8-O-R^9-C(O)OR^{10}$, $-R^8-O-R^9-C(O)N(R^6)R^7$, $-S(O)_pR^6$ (where p is 0, 1 or 2), $-S(O)_tN(R^6)R^7$ (where t is 1 or 2), $-R^8-N(R^6)R^7$, $-R^8-N(R^6)C(O)R^{10}$ and $-R^8-CN$;

d) aralkyl, wherein:

(1) the alkyl part of the aralkyl radical is optionally substituted with one or more substituents selected from the group consisting of halo, cyano, nitro, oxo, thioxo, trimethylsilanyl, $-OR^{14}$, $-OC(O)-R^{14}$, $-N(R^{14})_2$, $-C(O)R^{14}$, $-C(O)OR^{14}$,
 5 $-C(O)N(R^{14})_2$, $-N(R^{14})C(O)OR^{14}$, $-N(R^{14})C(O)R^{14}$, $-N(R^{14})S(O)_tR^{14}$ (where t is 1 or 2), $-S(O)_tOR^{14}$ (where t is 1 or 2), $-S(O)_pR^{14}$ (where p is 0, 1 or 2), and $-S(O)_tN(R^{14})_2$ (where t is 1 or 2) where each R^{14} is independently hydrogen, alkyl, haloalkyl, cycloalkyl, cycloalkylalkyl, aryl (optionally substituted with one or more halo groups), aralkyl, heterocyclyl, heterocyclalkyl, heteroaryl or heteroarylalkyl;
 10 and

(2) the aryl part of the aralkyl radical is optionally substituted with one or more substituents selected from the group consisting of alkyl, alkenyl, alkynyl, halo, haloalkyl, haloalkenyl, haloalkynyl, cyano, nitro, aryl, aralkyl, aralkenyl, aralkynyl, cycloalkyl, cycloalkylalkyl, cycloalkylalkenyl, cycloalkylalkynyl,
 15 heterocyclyl, heterocyclalkyl, heterocyclalkenyl, heterocyclalkynyl, heteroaryl, heteroarylalkyl, heteroarylalkenyl, heteroarylalkynyl, $-R^{15}-OR^{14}$, $-R^{15}-OC(O)-R^{14}$, $-R^{15}-N(R^{14})_2$, $-R^{15}-C(O)R^{14}$, $-R^{15}-C(O)OR^{14}$, $-R^{15}-C(O)N(R^{14})_2$, $-R^{15}-O-R^{16}-C(O)N(R^{14})_2$, $-R^{15}-N(R^{14})C(O)OR^{14}$, $-R^{15}-N(R^{14})C(O)R^{14}$, $-R^{15}-N(R^{14})S(O)_tR^{14}$ (where t is 1 or 2), $-R^{15}-S(O)_tOR^{14}$ (where t is 1 or 2),
 20 $-R^{15}-S(O)_pR^{14}$ (where p is 0, 1 or 2), and $-R^{15}-S(O)_tN(R^{14})_2$ (where t is 1 or 2), where each R^{14} is independently hydrogen, alkyl, haloalkyl, cycloalkyl, cycloalkylalkyl, aryl, aralkyl, heterocyclyl, heterocyclalkyl, heteroaryl or heteroarylalkyl, each R^{15} is independently a direct bond or a straight or branched alkylene or alkenylene chain, and R^{16} is a straight or branched alkylene or
 25 alkenylene chain;

e) heteroaryl optionally substituted with one or more substituents selected from the group consisting of alkyl, oxo, and $-R^8-OR^{10}$; or

f) heteroarylalkenyl where the heteroaryl part of the heteroarylalkyl radical is optionally substituted with one or more substituents selected from the group
 30 consisting of alkyl, halo, haloalkyl, aryl and aralkyl;

R^6 and R^7 are each independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, haloalkyl, haloalkenyl, haloalkynyl, hydroxyalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted aralkenyl, optionally substituted aralkynyl, optionally substituted cycloalkyl, optionally
 35 substituted cycloalkylalkyl, optionally substituted cycloalkylalkenyl, optionally

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substituted cycloalkylalkynyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heterocyclylalkenyl, optionally substituted heterocyclylalkynyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, optionally substituted heteroarylalkenyl, optionally substituted heteroarylalkynyl, -R⁹-OR¹⁰, -R⁹-CN, -R⁹-NO₂, -R⁹-N(R¹⁰)₂, -R⁹-C(O)OR¹⁰ and -R⁹-C(O)N(R¹⁰)₂;

optionally, R⁶ and R⁷, together with the nitrogen to which they are attached, form an optionally substituted *N*-heteroaryl or an optionally substituted *N*-heterocyclyl;

each R⁸ is independently selected from the group consisting of a direct bond, an optionally substituted straight or branched alkylene chain, an optionally substituted straight or branched alkenylene chain and an optionally substituted straight or branched alkynylene chain;

each R⁹ is independently selected from the group consisting of an optionally substituted straight or branched alkylene chain, an optionally substituted straight or branched alkenylene chain and an optionally substituted straight or branched alkynylene chain; and

each R¹⁰ is independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, haloalkyl, haloalkenyl, haloalkynyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted aralkenyl, optionally substituted aralkynyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted cycloalkylalkenyl, optionally substituted cycloalkylalkynyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heterocyclylalkenyl, optionally substituted heterocyclylalkynyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, optionally substituted heteroarylalkenyl, optionally substituted heteroarylalkynyl; and

each R¹¹ is hydrogen, alkyl, cyano, nitro or -OR¹⁰.

Another embodiment of the compounds of formula (Ib) are compounds of formula (Ib) wherein:

A is -C(O)-;

R¹ is aryl substituted with one or more substituents selected from the group consisting of halo, haloalkyl, alkyl, optionally substituted heteroaryl, optionally substituted heterocyclyl, -R⁸-OR¹⁰, -R⁸-O-R⁹-OR¹⁰, -R⁸-O-R⁹-O-R⁹-OR¹⁰, -R⁸-O-R⁹-CN, -R⁸-O-R⁹-C(O)OR¹⁰, -R⁸-O-R⁹-C(O)N(R⁶)R⁷, -R⁸-O-R⁹-S(O)_pR⁶ (where p is 0, 1 or 2), -R⁸-O-R⁹-N(R⁶)R⁷, -R⁸-O-R⁹-C(NR¹¹)N(R¹¹)H, and -R⁸-N(R⁶)C(O)R¹⁰;

R^2 , R^4 and R^5 are each hydrogen;

R^3 is one of the following:

a) alkyl optionally substituted with one or more substituents selected from the group consisting of halo, cyano, nitro, oxo, thioxo, trimethylsilyl, $-OR^{14}$, $-OC(O)-R^{14}$, $-N(R^{14})_2$, $-C(O)R^{14}$, $-C(O)OR^{14}$, $-C(O)N(R^{14})_2$, $-N(R^{14})C(O)OR^{14}$, $-N(R^{14})C(O)R^{14}$, $-N(R^{14})S(O)_tR^{14}$ (where t is 1 or 2), $-S(O)_tOR^{14}$ (where t is 1 or 2), $-S(O)_pR^{14}$ (where p is 0, 1 or 2), and $-S(O)_tN(R^{14})_2$ (where t is 1 or 2) where each R^{14} is independently hydrogen, alkyl, haloalkyl, cycloalkyl, cycloalkylalkyl, aryl (optionally substituted with one or more halo groups), aralkyl, heterocyclyl, heterocyclylalkyl, heteroaryl or heteroarylalkyl;

b) cycloalkyl optionally substituted with one or more substituents selected from the group consisting of $-R^8-OR^{10}$, alkyl, halo, haloalkyl, aryl, and aralkyl;

c) aryl substituted with one or more substituents selected from the group consisting of alkyl, halo, haloalkyl, nitro, cycloalkyl, cycloalkylalkyl, optionally substituted aryl, optionally substituted heteroaryl, optionally substituted heterocyclyl, $-R^8-OR^{10}$, $-R^8-C(O)OR^{10}$, $-R^8-OC(O)R^{10}$, $-R^8-O-R^9-C(O)OR^{10}$, $-R^8-O-R^9-C(O)N(R^6)R^7$, $-S(O)_pR^6$ (where p is 0, 1 or 2), $-S(O)_tN(R^6)R^7$ (where t is 1 or 2), $-R^8-N(R^6)R^7$, $-R^8-N(R^6)C(O)R^{10}$ and $-R^8-CN$;

d) aralkyl, wherein:

(1) the alkyl part of the aralkyl radical is optionally substituted with one or more substituents selected from the group consisting of halo, cyano, nitro, oxo, thioxo, trimethylsilyl, $-OR^{14}$, $-OC(O)-R^{14}$, $-N(R^{14})_2$, $-C(O)R^{14}$, $-C(O)OR^{14}$, $-C(O)N(R^{14})_2$, $-N(R^{14})C(O)OR^{14}$, $-N(R^{14})C(O)R^{14}$, $-N(R^{14})S(O)_tR^{14}$ (where t is 1 or 2), $-S(O)_tOR^{14}$ (where t is 1 or 2), $-S(O)_pR^{14}$ (where p is 0, 1 or 2), and $-S(O)_tN(R^{14})_2$ (where t is 1 or 2) where each R^{14} is independently hydrogen, alkyl, haloalkyl, cycloalkyl, cycloalkylalkyl, aryl (optionally substituted with one or more halo groups), aralkyl, heterocyclyl, heterocyclylalkyl, heteroaryl or heteroarylalkyl; and

(2) the aryl part of the aralkyl radical is optionally substituted with one or more substituents selected from the group consisting of alkyl, alkenyl, alkynyl, halo, haloalkyl, haloalkenyl, haloalkynyl, cyano, nitro, aryl, aralkyl, aralkenyl, aralkynyl, cycloalkyl, cycloalkylalkyl, cycloalkylalkenyl, cycloalkylalkynyl, heterocyclyl, heterocyclylalkyl, heterocyclylalkenyl, heterocyclylalkynyl, heteroaryl, heteroarylalkyl, heteroarylalkenyl, heteroarylalkynyl, $-R^{15}-OR^{14}$, $-R^{15}-OC(O)-R^{14}$, $-R^{15}-N(R^{14})_2$, $-R^{15}-C(O)R^{14}$, $-R^{15}-C(O)OR^{14}$, $-R^{15}-C(O)N(R^{14})_2$,

International Patent Classification Class

$-R^{15}-O-R^{16}-C(O)N(R^{14})_2$, $-R^{15}-N(R^{14})C(O)OR^{14}$, $-R^{15}-N(R^{14})C(O)R^{14}$,
 $-R^{15}-N(R^{14})S(O)_tR^{14}$ (where t is 1 or 2), $-R^{15}-S(O)_tOR^{14}$ (where t is 1 or 2),
 $-R^{15}-S(O)_pR^{14}$ (where p is 0, 1 or 2), and $-R^{15}-S(O)_tN(R^{14})_2$ (where t is 1 or 2),

where each R^{14} is independently hydrogen, alkyl, haloalkyl, cycloalkyl,
 5 cycloalkylalkyl, aryl, aralkyl, heterocyclyl, heterocyclalkyl, heteroaryl or
 heteroarylalkyl, each R^{15} is independently a direct bond or a straight or branched
 alkylene or alkenylene chain, and R^{16} is a straight or branched alkylene or
 alkenylene chain;

e) heteroaryl optionally substituted with one or more substituents selected
 10 from the group consisting of alkyl, oxo, and $-R^8-OR^{10}$; or

f) heteroarylalkenyl where the heteroaryl part of the heteroarylalkyl radical is
 optionally substituted with one or more substituents selected from the group
 consisting of alkyl, halo, haloalkyl, aryl and aralkyl;

R^6 and R^7 are each independently selected from the group consisting of hydrogen, alkyl,
 15 alkenyl, alkynyl, haloalkyl, haloalkenyl, haloalkynyl, hydroxyalkyl, optionally
 substituted aryl, optionally substituted aralkyl, optionally substituted aralkenyl,
 optionally substituted aralkynyl, optionally substituted cycloalkyl, optionally
 substituted cycloalkylalkyl, optionally substituted cycloalkylalkenyl, optionally
 substituted cycloalkylalkynyl, optionally substituted heterocyclyl, optionally
 20 substituted heterocyclalkyl, optionally substituted heterocyclalkenyl, optionally
 substituted heterocyclalkynyl, optionally substituted heteroaryl, optionally
 substituted heteroarylalkyl, optionally substituted heteroarylalkenyl, optionally
 substituted heteroarylalkynyl, $-R^9-OR^{10}$, $-R^9-CN$, $-R^9-NO_2$, $-R^9-N(R^{10})_2$,
 $-R^9-C(O)OR^{10}$ and $-R^9-C(O)N(R^{10})_2$;

25 optionally, R^6 and R^7 , together with the nitrogen to which they are attached, form an
 optionally substituted *N*-heteroaryl or an optionally substituted *N*-heterocyclyl;

each R^8 is independently selected from the group consisting of a direct bond, an
 optionally substituted straight or branched alkylene chain, an optionally
 substituted straight or branched alkenylene chain and an optionally substituted
 30 straight or branched alkynylene chain;

each R^9 is independently selected from the group consisting of an optionally substituted
 straight or branched alkylene chain, an optionally substituted straight or branched
 alkenylene chain and an optionally substituted straight or branched alkynylene
 chain; and

35 each R^{10} is independently selected from the group consisting of hydrogen, alkyl, alkenyl,

alkynyl, haloalkyl, haloalkenyl, haloalkynyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted aralkenyl, optionally substituted aralkynyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted cycloalkylalkenyl, optionally substituted cycloalkylalkynyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heterocyclylalkenyl, optionally substituted heterocyclylalkynyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, optionally substituted heteroarylalkenyl, optionally substituted heteroarylalkynyl; and

each R^{11} is hydrogen, alkyl, cyano, nitro or $-OR^{10}$.

Another embodiment of the compounds of formula (Ib) are compounds of formula (Ib) wherein:

A is $-C(O)-$;

R^1 is aryl substituted with one or more substituents selected from the group consisting of halo, haloalkyl, alkyl, optionally substituted heteroaryl, optionally substituted heterocyclyl, $-R^8-OR^{10}$, $-R^8-O-R^9-OR^{10}$, $-R^8-O-R^9-O-R^9-OR^{10}$, $-R^8-O-R^9-CN$, $-R^8-O-R^9-C(O)OR^{10}$, $-R^8-O-R^9-C(O)N(R^6)R^7$, $-R^8-O-R^9-S(O)_pR^6$ (where p is 0, 1 or 2), $-R^8-O-R^9-N(R^6)R^7$, $-R^8-O-R^9-C(NR^{11})N(R^{11})H$, and $-R^8-N(R^6)C(O)R^{10}$;

R^2 , R^4 and R^5 are each hydrogen;

R^3 is cycloalkyl optionally substituted with $-R^8-OR^{10}$;

or R^3 is aryl substituted with one or more substituents selected from the group consisting of alkyl, halo, haloalkyl, nitro, cycloalkyl, cycloalkylalkyl, optionally substituted aryl, optionally substituted heteroaryl, optionally substituted heterocyclyl, $-R^8-OR^{10}$, $-R^8-C(O)OR^{10}$, $-R^8-OC(O)R^{10}$, $-R^8-O-R^9-C(O)OR^{10}$, $-R^8-O-R^9-C(O)N(R^6)R^7$, $-S(O)_pR^6$ (where p is 0, 1 or 2), $-S(O)_tN(R^6)R^7$ (where t is 1 or 2), $-R^8-N(R^6)R^7$, $-R^8-N(R^6)C(O)R^{10}$, and $-R^8-CN$;

R^6 and R^7 are each independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, haloalkyl, haloalkenyl, haloalkynyl, hydroxyalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted aralkenyl, optionally substituted aralkynyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted cycloalkylalkenyl, optionally substituted cycloalkylalkynyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heterocyclylalkenyl, optionally substituted heterocyclylalkynyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, optionally substituted heteroarylalkenyl, optionally

substituted heteroarylalkynyl, $-R^9-OR^{10}$, $-R^9-CN$, $-R^9-NO_2$, $-R^9-N(R^{10})_2$,
 $-R^9-C(O)OR^{10}$ and $-R^9-C(O)N(R^{10})_2$;

optionally, R^6 and R^7 , together with the nitrogen to which they are attached, form an
 optionally substituted *N*-heteroaryl or an optionally substituted *N*-heterocyclyl;

5 each R^8 is independently selected from the group consisting of a direct bond, an
 optionally substituted straight or branched alkylene chain, an optionally
 substituted straight or branched alkenylene chain and an optionally substituted
 straight or branched alkynylene chain;

each R^9 is independently selected from the group consisting of an optionally substituted
 10 straight or branched alkylene chain, an optionally substituted straight or branched
 alkenylene chain and an optionally substituted straight or branched alkynylene
 chain; and

each R^{10} is independently selected from the group consisting of hydrogen, alkyl, alkenyl,
 alkynyl, haloalkyl, haloalkenyl, haloalkynyl, optionally substituted aryl, optionally
 15 substituted aralkyl, optionally substituted aralkenyl, optionally substituted
 aralkynyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl,
 optionally substituted cycloalkylalkenyl, optionally substituted cycloalkylalkynyl,
 optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl,
 optionally substituted heterocyclylalkenyl, optionally substituted
 20 heterocyclylalkynyl, optionally substituted heteroaryl, optionally substituted
 heteroarylalkyl, optionally substituted heteroarylalkenyl, optionally substituted
 heteroarylalkynyl; and

each R^{11} is hydrogen, alkyl, cyano, nitro or $-OR^{10}$.

Another embodiment of the compounds of formula (Ib) are compounds of formula
 25 (Ib) wherein:

A is $-C(O)-$;

R^1 is phenyl substituted with one or more substituents selected from the group consisting
 of halo, haloalkyl, alkyl, optionally substituted heteroaryl, optionally substituted
 heterocyclyl, $-R^8-OR^{10}$, $-R^8-O-R^9-OR^{10}$, $-R^8-O-R^9-O-R^9-OR^{10}$, $-R^8-O-R^9-CN$,
 30 $-R^8-O-R^9-C(O)OR^{10}$, $-R^8-O-R^9-C(O)N(R^6)R^7$, $-R^8-O-R^9-S(O)_pR^6$ (where *p* is 0, 1 or
 2), $-R^8-O-R^9-N(R^6)R^7$, $-R^8-O-R^9-C(NR^{11})N(R^{11})H$, and $-R^8-N(R^6)C(O)R^{10}$;

R^2 , R^4 and R^5 are each hydrogen;

R^3 is cycloalkyl optionally substituted with $-R^8-OR^{10}$; or

R^3 is phenyl substituted with one or more substituents selected from the group consisting
 35 of alkyl, halo, haloalkyl, nitro, cycloalkyl, cycloalkylalkyl, optionally substituted

aryl, optionally substituted heteroaryl, optionally substituted heterocyclyl,
 $-R^8-OR^{10}$, $-R^8-C(O)OR^{10}$, $-R^8-OC(O)R^{10}$, $-R^8-O-R^9-C(O)OR^{10}$,
 $-R^8-O-R^9-C(O)N(R^6)R^7$, $-S(O)_pR^6$ (where p is 0, 1 or 2), $-S(O)_tN(R^6)R^7$ (where t is
 1 or 2), $-R^8-N(R^6)R^7$, $-R^8-N(R^6)C(O)R^{10}$, and $-R^8-CN$;

5 R^6 and R^7 are each independently selected from the group consisting of hydrogen, alkyl,
 alkenyl, alkynyl, haloalkyl, haloalkenyl, haloalkynyl, hydroxyalkyl, optionally
 substituted aryl, optionally substituted aralkyl, optionally substituted aralkenyl,
 optionally substituted aralkynyl, optionally substituted cycloalkyl, optionally
 substituted cycloalkylalkyl, optionally substituted cycloalkylalkenyl, optionally
 10 substituted cycloalkylalkynyl, optionally substituted heterocyclyl, optionally
 substituted heterocyclylalkyl, optionally substituted heterocyclylalkenyl, optionally
 substituted heterocyclylalkynyl, optionally substituted heteroaryl, optionally
 substituted heteroarylalkyl, optionally substituted heteroarylalkenyl, optionally
 substituted heteroarylalkynyl, $-R^9-OR^{10}$, $-R^9-CN$, $-R^9-NO_2$, $-R^9-N(R^{10})_2$,
 15 $-R^9-C(O)OR^{10}$ and $-R^9-C(O)N(R^{10})_2$;

optionally, R^6 and R^7 , together with the nitrogen to which they are attached, form an
 optionally substituted *N*-heteroaryl or an optionally substituted *N*-heterocyclyl;

each R^8 is independently selected from the group consisting of a direct bond, an
 optionally substituted straight or branched alkylene chain, an optionally
 20 substituted straight or branched alkenylene chain and an optionally substituted
 straight or branched alkynylene chain;

each R^9 is independently selected from the group consisting of an optionally substituted
 straight or branched alkylene chain, an optionally substituted straight or branched
 alkenylene chain and an optionally substituted straight or branched alkynylene
 25 chain; and

each R^{10} is independently selected from the group consisting of hydrogen, alkyl, alkenyl,
 alkynyl, haloalkyl, haloalkenyl, haloalkynyl, optionally substituted aryl, optionally
 substituted aralkyl, optionally substituted aralkenyl, optionally substituted
 aralkynyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl,
 30 optionally substituted cycloalkylalkenyl, optionally substituted cycloalkylalkynyl,
 optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl,
 optionally substituted heterocyclylalkenyl, optionally substituted
 heterocyclylalkynyl, optionally substituted heteroaryl, optionally substituted
 heteroarylalkyl, optionally substituted heteroarylalkenyl, optionally substituted
 35 heteroarylalkynyl; and

each R^{11} is hydrogen, alkyl, cyano, nitro or $-OR^{10}$.

Another embodiment of the compounds of formula (Ib) are compounds of formula (Ib) wherein:

A is $-C(O)-$;

- 5 R^1 is phenyl substituted with one or two substituents selected from the group consisting of halo, haloalkyl, alkyl, optionally substituted heteroaryl, optionally substituted heterocyclyl, $-R^8-OR^{10}$, $-R^8-O-R^9-OR^{10}$, $-R^8-O-R^9-O-R^9-OR^{10}$, $-R^8-O-R^9-CN$, $-R^8-O-R^9-C(O)OR^{10}$, $-R^8-O-R^9-C(O)N(R^6)R^7$, $-R^8-O-R^9-S(O)_pR^6$ (where p is 0, 1 or 2), $-R^8-O-R^9-N(R^6)R^7$, $-R^8-O-R^9-C(NR^{11})N(R^{11})H$, and $-R^8-N(R^6)C(O)R^{10}$;
- 10 R^2 , R^4 and R^5 are each hydrogen;
 R^3 is cycloalkyl optionally substituted with $-R^8-OR^{10}$;
 or R^3 is phenyl substituted with one or more substituents selected from the group consisting of alkyl, halo, haloalkyl, nitro, cycloalkyl, cycloalkylalkyl, optionally substituted aryl, optionally substituted heteroaryl, optionally substituted heterocyclyl, $-R^8-OR^{10}$, $-R^8-C(O)OR^{10}$, $-R^8-OC(O)R^{10}$, $-R^8-O-R^9-C(O)OR^{10}$, $-R^8-O-R^9-C(O)N(R^6)R^7$, $-S(O)_pR^6$ (where p is 0, 1 or 2), $-S(O)_tN(R^6)R^7$ (where t is 1 or 2), $-R^8-N(R^6)R^7$, $-R^8-N(R^6)C(O)R^{10}$, and $-R^8-CN$;
- 15 R^6 and R^7 are each independently selected from the group consisting of hydrogen, alkyl, haloalkyl, hydroxyalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, $-R^9-OR^{10}$, $-R^9-CN$, $-R^9-NO_2$, $-R^9-N(R^{10})_2$, $-R^9-C(O)OR^{10}$ and $-R^9-C(O)N(R^{10})_2$;
- 20 each R^8 is independently selected from the group consisting of a direct bond, an optionally substituted straight or branched alkylene chain, and an optionally substituted straight or branched alkenylene chain;
- 25 each R^9 is independently selected from the group consisting of an optionally substituted straight or branched alkylene chain, or an optionally substituted straight or branched alkenylene chain; and
- 30 each R^{10} is independently selected from the group consisting of hydrogen, alkyl, haloalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heteroaryl, and optionally substituted heteroarylalkyl; and
- 35 each R^{11} is hydrogen, alkyl, cyano, nitro or $-OR^{10}$.

Another embodiment of the compounds of formula (Ib) are compounds of formula (Ib) wherein:

A is -C(O)-;

R¹ is phenyl substituted with one or more substituents selected from the group consisting
5 of halo, haloalkyl, alkyl, -R⁸-OR¹⁰, -R⁸-O-R⁹-OR¹⁰, and -R⁸-O-R⁹-O-R⁹-OR¹⁰;

R², R⁴ and R⁵ are each hydrogen;

R³ is cycloalkyl optionally substituted with -R⁸-OR¹⁰;

or R³ is phenyl substituted with one or more substituents selected from the group
10 consisting of alkyl, halo, haloalkyl, nitro, cycloalkyl, cycloalkylalkyl, optionally substituted aryl, optionally substituted heteroaryl, optionally substituted heterocyclyl, -R⁸-OR¹⁰, -R⁸-C(O)OR¹⁰, -R⁸-OC(O)R¹⁰, -R⁸-O-R⁹-C(O)OR¹⁰, -R⁸-O-R⁹-C(O)N(R⁶)R⁷, -S(O)_pR⁶ (where p is 0, 1 or 2), -S(O)_tN(R⁶)R⁷ (where t is 1 or 2), -R⁸-N(R⁶)R⁷, -R⁸-N(R⁶)C(O)R¹⁰, and -R⁸-CN;

R⁶ and R⁷ are each independently selected from the group consisting of hydrogen, alkyl,
15 haloalkyl, hydroxyalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, -R⁹-OR¹⁰, -R⁹-CN, -R⁹-NO₂, -R⁹-N(R¹⁰)₂, -R⁹-C(O)OR¹⁰ and -R⁹-C(O)N(R¹⁰)₂;

20 each R⁸ is independently selected from the group consisting of a direct bond, an optionally substituted straight or branched alkylene chain, and an optionally substituted straight or branched alkenylene chain;

each R⁹ is independently selected from the group consisting of an optionally substituted
25 straight or branched alkylene chain, or an optionally substituted straight or branched alkenylene chain; and

each R¹⁰ is independently selected from the group consisting of hydrogen, alkyl,
haloalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted
30 heteroaryl, and optionally substituted heteroarylalkyl.

Of this embodiment, a specific embodiment is a compound of formula (Ib) selected from the group consisting of:

3-amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-5-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-
1H-1,2,4-triazole;

35 3-amino-5-[4-(*iso*-propoxy)phenylamino]-1-(4-(methyl)phenyl)carbonyl-1H-1,2,4-triazole;

3-amino-1-(4-*iso*-propoxyphenyl)carbonyl-5-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-
1H-1,2,4-triazole;

3-amino-1-(4-(*tert*-butyl)phenyl)carbonyl-5-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-
1,2,4-triazole; and

5 3-amino-1-(4-(morpholin-4-yl)phenyl)carbonyl-5-[3-fluoro-4-[2-(pyrrolidin-1-
yl)ethoxy]phenylamino]-1H-1,2,4-triazole.

Another embodiment of the compounds of formula (Ib) are compounds of formula
(Ib) wherein:

A is -C(O)-;

10 R¹ is phenyl substituted with optionally substituted heteroaryl or optionally substituted
heterocyclyl;

R², R⁴ and R⁵ are each hydrogen;

R³ is phenyl substituted with one or more substituents selected from the group consisting
of alkyl, halo, haloalkyl, nitro, cycloalkyl, cycloalkylalkyl, optionally substituted
15 aryl, optionally substituted heteroaryl, optionally substituted heterocyclyl,
-R⁸-OR¹⁰, -R⁸-C(O)OR¹⁰, -R⁸-OC(O)R¹⁰, -R⁸-O-R⁹-C(O)OR¹⁰,
-R⁸-O-R⁹-C(O)N(R⁶)R⁷, -S(O)_pR⁶ (where p is 0, 1 or 2), -S(O)_tN(R⁶)R⁷ (where t is
1 or 2), -R⁸-N(R⁶)R⁷, -R⁸-N(R⁶)C(O)R¹⁰, and -R⁸-CN;

R⁶ and R⁷ are each independently selected from the group consisting of hydrogen, alkyl,
20 haloalkyl, hydroxyalkyl, optionally substituted aryl, optionally substituted aralkyl,
optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally
substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally
substituted heteroaryl, optionally substituted heteroarylalkyl, -R⁹-OR¹⁰, -R⁹-CN,
-R⁹-NO₂, -R⁹-N(R¹⁰)₂, -R⁹-C(O)OR¹⁰ and -R⁹-C(O)N(R¹⁰)₂;

25 each R⁸ is independently selected from the group consisting of a direct bond, an
optionally substituted straight or branched alkylene chain, and an optionally
substituted straight or branched alkenylene chain;

each R⁹ is independently selected from the group consisting of an optionally substituted
straight or branched alkylene chain, or an optionally substituted straight or
30 branched alkenylene chain; and

each R¹⁰ is independently selected from the group consisting of hydrogen, alkyl,
haloalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally
substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted
heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted
35 heteroaryl, and optionally substituted heteroarylalkyl.

Of this embodiment, a specific embodiment is a compound of formula (Ib) selected from the group consisting of:

3-amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-5-(4-(morpholin-4-yl)phenylamino]-1H-1,2,4-triazole;

5 3-amino-5-(4-(morpholin-4-yl)phenylamino)-1-(4-(*tert*-butoxy)phenyl)carbonyl-1H-1,2,4-triazole;

3-amino-1-(3-(chloro)phenyl)carbonyl-5-(4-(morpholin-4-yl)phenylamino)-1H-1,2,4-triazole;

10 3-amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-5-[4-(piperidin-1-yl)phenylamino]-1H-1,2,4-triazole;

3-amino-1-(4-(*tert*-butoxy)phenyl)carbonyl-5-(4-(pyrrolidin-1-yl)phenylamino]-1H-1,2,4-triazole;

3-amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-5-(4-(pyrrolidin-1-yl)phenylamino]-1H-1,2,4-triazole;

15 3-amino-1-(4-(*tert*-butyl)phenyl)carbonyl-5-[4-(pyrrolidin-1-yl)phenylamino]-1H-1,2,4-triazole;

3-amino-1-(4-methylphenyl)carbonyl-5-(4-(pyrrolidin-1-yl)phenylamino]-1H-1,2,4-triazole;

3-amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-5-(4-(4-methylpiperazin-1-yl)phenylamino]-1H-1,2,4-triazole;

20 3-amino-1-(4-(dimethylamino)phenyl)carbonyl-5-(4-(4-methylpiperazin-1-yl)phenylamino]-1H-1,2,4-triazole; and

3-amino-1-(3-(dimethylamino)phenyl)carbonyl-5-(4-(4-methylpiperazin-1-yl)phenylamino]-1H-1,2,4-triazole.

Another embodiment of the compounds of formula (Ib) are compounds of formula (Ib) wherein:

A is -C(O)-;

R¹ is phenyl substituted with -R⁸-O-R⁹-CN, -R⁸-O-R⁹-C(O)OR¹⁰, -R⁸-O-R⁹-C(O)N(R⁶)R⁷, -R⁸-O-R⁹-S(O)_pR⁶ (where p is 0, 1 or 2), -R⁸-O-R⁹-N(R⁶)R⁷, -R⁸-O-R⁹-C(NR¹¹)N(R¹¹)H, and -R⁸-N(R⁶)C(O)R¹⁰;

30 R², R⁴ and R⁵ are each hydrogen;

R³ is phenyl substituted with one or more substituents selected from the group consisting of alkyl, halo, haloalkyl, nitro, cycloalkyl, cycloalkylalkyl, -R⁸-OR¹⁰, -R⁸-C(O)OR¹⁰, -R⁸-OC(O)R¹⁰, -R⁸-O-R⁹-C(O)OR¹⁰, -R⁸-O-R⁹-C(O)N(R⁶)R⁷, -S(O)_pR⁶ (where p is 0, 1 or 2), -S(O)_tN(R⁶)R⁷ (where t is 1 or 2), -R⁸-N(R⁶)R⁷, -R⁸-N(R⁶)C(O)R¹⁰, and -R⁸-CN;

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R^6 and R^7 are each independently selected from the group consisting of hydrogen, alkyl, haloalkyl, hydroxyalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, $-R^9-OR^{10}$, $-R^9-CN$, $-R^9-NO_2$, $-R^9-N(R^{10})_2$, $-R^9-C(O)OR^{10}$ and $-R^9-C(O)N(R^{10})_2$;

each R^8 is independently selected from the group consisting of a direct bond, an optionally substituted straight or branched alkylene chain, and an optionally substituted straight or branched alkenylene chain;

each R^9 is independently selected from the group consisting of an optionally substituted straight or branched alkylene chain, or an optionally substituted straight or branched alkenylene chain; and

each R^{10} is independently selected from the group consisting of hydrogen, alkyl, haloalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heteroaryl, and optionally substituted heteroarylalkyl; and

each R^{11} is hydrogen, alkyl, cyano, nitro or $-OR^{10}$.

Of this embodiment, a specific embodiment is the following compound of formula

(Ib), *i.e.*, 3-amino-5-[3-[cyclohexylaminocarbonylmethoxy]phenylamino]-1-(3-(methyl)phenyl)carbonyl-1H-1,2,4-triazole.

Another embodiment of the compounds of formula (Ib) are compounds of formula (Ib) wherein:

A is $-C(O)-$;

R^1 is aryl substituted with one or more substituents selected from the group consisting of halo, haloalkyl, alkyl, optionally substituted heteroaryl, optionally substituted heterocyclyl, $-R^8-OR^{10}$, $-R^8-O-R^9-OR^{10}$, $-R^8-O-R^9-O-R^9-OR^{10}$, $-R^8-O-R^9-CN$, $-R^8-O-R^9-C(O)OR^{10}$, $-R^8-O-R^9-C(O)N(R^6)R^7$, $-R^8-O-R^9-S(O)_pR^6$ (where p is 0, 1 or 2), $-R^8-O-R^9-N(R^6)R^7$, $-R^8-O-R^9-C(NR^{11})N(R^{11})H$, and $-R^8-N(R^6)C(O)R^{10}$;

R^2 , R^4 and R^5 are each hydrogen;

R^3 is heteroaryl optionally substituted with one or more substituents selected from the group consisting of alkyl, oxo, and $-R^8-OR^{10}$;

R^6 and R^7 are each independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, haloalkyl, haloalkenyl, haloalkynyl, hydroxyalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted aralkenyl,

optionally substituted aralkynyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted cycloalkylalkenyl, optionally substituted cycloalkylalkynyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heterocyclylalkenyl, optionally substituted heterocyclylalkynyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, optionally substituted heteroarylalkenyl, optionally substituted heteroarylalkynyl, $-R^9-OR^{10}$, $-R^9-CN$, $-R^9-NO_2$, $-R^9-N(R^{10})_2$, $-R^9-C(O)OR^{10}$ and $-R^9-C(O)N(R^{10})_2$;

optionally, R^6 and R^7 , together with the nitrogen to which they are attached, form an

optionally substituted *N*-heteroaryl or an optionally substituted *N*-heterocyclyl;

each R^8 is independently selected from the group consisting of a direct bond, an optionally substituted straight or branched alkylene chain, an optionally substituted straight or branched alkenylene chain and an optionally substituted straight or branched alkynylene chain;

each R^9 is independently selected from the group consisting of an optionally substituted straight or branched alkylene chain, an optionally substituted straight or branched alkenylene chain and an optionally substituted straight or branched alkynylene chain; and

each R^{10} is independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, haloalkyl, haloalkenyl, haloalkynyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted aralkenyl, optionally substituted aralkynyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted cycloalkylalkenyl, optionally substituted cycloalkylalkynyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heterocyclylalkenyl, optionally substituted heterocyclylalkynyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, optionally substituted heteroarylalkenyl, optionally substituted heteroarylalkynyl; and

each R^{11} is hydrogen, alkyl, cyano, nitro or $-OR^{10}$.

Another embodiment of the compounds of formula (Ib) are compounds of formula (Ib) wherein:

A is $-C(O)-$;

R^1 is phenyl substituted with one or more substituents selected from the group consisting of halo, haloalkyl, alkyl, optionally substituted heteroaryl, optionally substituted heterocyclyl, $-R^8-OR^{10}$, $-R^8-O-R^9-OR^{10}$, $-R^8-O-R^9-O-R^9-OR^{10}$, $-R^8-O-R^9-CN$,

FIG. 1 is a chemical structure of a compound of formula (I).

$-R^8-O-R^9-C(O)OR^{10}$, $-R^8-O-R^9-C(O)N(R^6)R^7$, $-R^8-O-R^9-S(O)_pR^6$ (where p is 0, 1 or 2), $-R^8-O-R^9-N(R^6)R^7$, $-R^8-O-R^9-C(NR^{11})N(R^{11})H$, and $-R^8-N(R^6)C(O)R^{10}$;

R^2 , R^4 and R^5 are each hydrogen;

R^3 is heteroaryl optionally substituted with one or more substituents selected from the

5 group consisting of alkyl, oxo, and $-R^8-OR^{10}$;

R^6 and R^7 are each independently selected from the group consisting of hydrogen, alkyl, haloalkyl, hydroxyalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted heterocyclyl, optionally substituted heterocyclalkyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, $-R^9-OR^{10}$, $-R^9-CN$, $-R^9-NO_2$, $-R^9-N(R^{10})_2$, $-R^9-C(O)OR^{10}$ and $-R^9-C(O)N(R^{10})_2$;

10

each R^8 is independently selected from the group consisting of a direct bond, an optionally substituted straight or branched alkylene chain or an optionally substituted straight or branched alkenylene chain;

15

each R^9 is independently selected from the group consisting of an optionally substituted straight or branched alkylene chain or an optionally substituted straight or branched alkenylene chain; and

each R^{10} is independently selected from the group consisting of hydrogen, alkyl, haloalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted heterocyclyl, optionally substituted heterocyclalkyl, optionally substituted heteroaryl, or optionally substituted heteroarylalkyl; and

20

each R^{11} is hydrogen, alkyl, cyano, nitro or $-OR^{10}$.

Of this embodiment, a specific embodiment is a compound of formula (Ib)

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selected from the group consisting of:

3-amino-1-(2,2-dimethyl-2H-benzo[b][1,4]oxazin-3(4H)-on-6-yl)carbonyl-5-(4-(isopropoxy)phenyl)amino-1H-1,2,4-triazole;

3-amino-1-(2,2-dimethyl-2H-benzo[b][1,4]oxazin-3(4H)-on-6-yl)carbonyl-5-(4-(morpholin-4-yl)phenylamino)-1H-1,2,4-triazole;

30

3-amino-1-(1H-indol-5-yl)carbonyl-5-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

3-amino-1-(2,2-dimethyl-2H-benzo[b][1,4]oxazin-3(4H)-on-6-yl)carbonyl-5-[4-(pyrrolidin-1-yl)phenylamino]-1H-1,2,4-triazole;

3-amino-1-(benzo[b]thiophen-2-yl)carbonyl-5-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

35

3-amino-1-(1H-indol-6-yl)carbonyl-5-[4-[2-(imidazol-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

3-amino-1-(benzo[b]thiophen-5-yl)carbonyl-5-[4-[2-(imidazol-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5 3-amino-1-(1,4-benzodioxan-6-yl)carbonyl-5-[4-[2-((S)-3-fluoropyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole; and

3-amino-1-(1H-indol-6-yl)carbonyl-5-[4-[2-((S)-3-fluoropyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole.

Another embodiment of the compounds of formula (Ib) are compounds of formula

10 (Ib) wherein:

A is -C(O)-;

R¹ is heteroaryl optionally substituted with one or more substituents selected from the group consisting of alkyl, halo, oxo, -R⁸-OR¹⁰, -R⁸-C(O)OR¹⁰, -R⁸-C(O)N(R⁶)R⁷ and -R⁸-N(R⁶)R⁷;

15 or R¹ is heterocyclalkyl optionally substituted with one or more substituents selected from the group consisting of halo, haloalkyl, alkyl, optionally substituted aryl, optionally substituted aralkyl, -R⁸-OR¹⁰, -R⁸-C(O)OR¹⁰, -R⁸-C(O)N(R⁶)R⁷ and -R⁸-N(R⁶)R⁷;

or R¹ is cycloalkyl optionally substituted with one or more substituents selected from the group consisting of halo, haloalkyl, alkyl, oxo, -R⁸-OR¹⁰, -R⁸-C(O)OR¹⁰, -R⁸-C(O)N(R⁶)R⁷, -R⁸-S(O)_pR¹⁰ (where p is 0, 1 or 2) and -R⁸-N(R⁶)R⁷;

R² is hydrogen, alkyl or -C(O)R¹⁰;

R⁴ and R⁵ are each hydrogen or alkyl;

R³ is one of the following:

25 a) alkyl optionally substituted with one or more substituents selected from the group consisting of halo, cyano, nitro, oxo, thioxo, trimethylsilyl, -OR¹⁴, -OC(O)-R¹⁴, -N(R¹⁴)₂, -C(O)R¹⁴, -C(O)OR¹⁴, -C(O)N(R¹⁴)₂, -N(R¹⁴)C(O)OR¹⁴, -N(R¹⁴)C(O)R¹⁴, -N(R¹⁴)S(O)_tR¹⁴ (where t is 1 or 2), -S(O)_tOR¹⁴ (where t is 1 or 2), -S(O)_pR¹⁴ (where p is 0, 1 or 2), and -S(O)_tN(R¹⁴)₂ (where t is 1 or 2) where each
30 R¹⁴ is independently hydrogen, alkyl, haloalkyl, cycloalkyl, cycloalkylalkyl, aryl (optionally substituted with one or more halo groups), aralkyl, heterocyclalkyl, heterocyclalkyl, heteroaryl or heteroarylalkyl;

b) cycloalkyl optionally substituted with one or more substituents selected from the group consisting of -R⁸-OR¹⁰, alkyl, halo, haloalkyl, aryl, and aralkyl;

35 c) aryl substituted with one or more substituents selected from the group

consisting of alkyl, halo, haloalkyl, nitro, cycloalkyl, cycloalkylalkyl, $-R^8-OR^{10}$, $-R^8-C(O)OR^{10}$, $-R^8-OC(O)R^{10}$, $-R^8-O-R^9-C(O)OR^{10}$, $-R^8-O-R^9-C(O)N(R^6)R^7$, $-S(O)_pR^6$ (where p is 0, 1 or 2), $-S(O)_tN(R^6)R^7$ (where t is 1 or 2), $-R^8-N(R^6)R^7$, $-R^8-N(R^6)C(O)R^{10}$ and $-R^8-CN$;

5 d) aralkyl, wherein:

(1) the alkyl part of the aralkyl radical is optionally substituted with one or more substituents selected from the group consisting of halo, cyano, nitro, oxo, thioxo, trimethylsilanyl, $-OR^{14}$, $-OC(O)-R^{14}$, $-N(R^{14})_2$, $-C(O)R^{14}$, $-C(O)OR^{14}$, $-C(O)N(R^{14})_2$, $-N(R^{14})C(O)OR^{14}$, $-N(R^{14})C(O)R^{14}$, $-N(R^{14})S(O)_tR^{14}$ (where t is 1 or 2), $-S(O)_tOR^{14}$ (where t is 1 or 2), $-S(O)_pR^{14}$ (where p is 0, 1 or 2), and $-S(O)_tN(R^{14})_2$ (where t is 1 or 2) where each R^{14} is independently hydrogen, alkyl, haloalkyl, cycloalkyl, cycloalkylalkyl, aryl (optionally substituted with one or more halo groups), aralkyl, heterocyclyl, heterocyclalkyl, heteroaryl or heteroarylalkyl; and

15 (2) the aryl part of the aralkyl radical is optionally substituted with one or more substituents selected from the group consisting of alkyl, alkenyl, alkynyl, halo, haloalkyl, haloalkenyl, haloalkynyl, cyano, nitro, aryl, aralkyl, aralkenyl, aralkynyl, cycloalkyl, cycloalkylalkyl, cycloalkylalkenyl, cycloalkylalkynyl, heterocyclyl, heterocyclalkyl, heterocyclalkenyl, heterocyclalkynyl, heteroaryl, heteroarylalkyl, heteroarylalkenyl, heteroarylalkynyl, $-R^{15}-OR^{14}$, $-R^{15}-OC(O)-R^{14}$, $-R^{15}-N(R^{14})_2$, $-R^{15}-C(O)R^{14}$, $-R^{15}-C(O)OR^{14}$, $-R^{15}-C(O)N(R^{14})_2$, $-R^{15}-O-R^{16}-C(O)N(R^{14})_2$, $-R^{15}-N(R^{14})C(O)OR^{14}$, $-R^{15}-N(R^{14})C(O)R^{14}$, $-R^{15}-N(R^{14})S(O)_tR^{14}$ (where t is 1 or 2), $-R^{15}-S(O)_tOR^{14}$ (where t is 1 or 2), $-R^{15}-S(O)_pR^{14}$ (where p is 0, 1 or 2), and $-R^{15}-S(O)_tN(R^{14})_2$ (where t is 1 or 2), where each R^{14} is independently hydrogen, alkyl, haloalkyl, cycloalkyl, cycloalkylalkyl, aryl, aralkyl, heterocyclyl, heterocyclalkyl, heteroaryl or heteroarylalkyl, each R^{15} is independently a direct bond or a straight or branched alkylene or alkenylene chain, and R^{16} is a straight or branched alkylene or alkenylene chain;

30 e) heteroaryl optionally substituted with one or more substituents selected from the group consisting of alkyl, oxo, and $-R^8-OR^{10}$; or

f) heteroarylalkenyl where the heteroaryl part of the heteroarylalkyl radical is optionally substituted with one or more substituents selected from the group consisting of alkyl, halo, haloalkyl, aryl and aralkyl;

35 R^6 and R^7 are each independently selected from the group consisting of hydrogen, alkyl,

alkenyl, alkynyl, haloalkyl, haloalkenyl, haloalkynyl, hydroxyalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted aralkenyl, optionally substituted aralkynyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted cycloalkylalkenyl, optionally substituted cycloalkylalkynyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heterocyclylalkenyl, optionally substituted heterocyclylalkynyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, optionally substituted heteroarylalkenyl, optionally substituted heteroarylalkynyl, -R⁹-OR¹⁰, -R⁹-CN, -R⁹-NO₂, -R⁹-N(R¹⁰)₂, -R⁹-C(O)OR¹⁰ and -R⁹-C(O)N(R¹⁰)₂;

optionally, R⁶ and R⁷, together with the nitrogen to which they are attached, form an optionally substituted *N*-heteroaryl or an optionally substituted *N*-heterocyclyl; each R⁸ is independently selected from the group consisting of a direct bond, an optionally substituted straight or branched alkylene chain, an optionally substituted straight or branched alkenylene chain and an optionally substituted straight or branched alkynylene chain;

each R⁹ is independently selected from the group consisting of an optionally substituted straight or branched alkylene chain, an optionally substituted straight or branched alkenylene chain and an optionally substituted straight or branched alkynylene chain; and

each R¹⁰ is independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, haloalkyl, haloalkenyl, haloalkynyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted aralkenyl, optionally substituted aralkynyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted cycloalkylalkenyl, optionally substituted cycloalkylalkynyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heterocyclylalkenyl, optionally substituted heterocyclylalkynyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, optionally substituted heteroarylalkenyl, optionally substituted heteroarylalkynyl.

Another embodiment of the compounds of formula (Ib) are compounds of formula (Ib) wherein:

A is -C(O)-;

R¹ is heteroaryl optionally substituted with one or more substituents selected from the group consisting of alkyl, halo, oxo, -R⁸-OR¹⁰, -R⁸-C(O)OR¹⁰, -R⁸-C(O)N(R⁶)R⁷

and $-R^8-N(R^6)R^7$;

or R^1 is heterocyclalkyl optionally substituted with one or more substituents selected from the group consisting of halo, haloalkyl, alkyl, optionally substituted aryl, optionally substituted aralkyl, $-R^8-OR^{10}$, $-R^8-C(O)OR^{10}$, $-R^8-C(O)N(R^6)R^7$ and $-R^8-N(R^6)R^7$;

or R^1 is cycloalkyl optionally substituted with one or more substituents selected from the group consisting of halo, haloalkyl, alkyl, oxo, $-R^8-OR^{10}$, $-R^8-C(O)OR^{10}$, $-R^8-C(O)N(R^6)R^7$, $-R^8-S(O)_pR^{10}$ (where p is 0, 1 or 2) and $-R^8-N(R^6)R^7$;

R^2 is hydrogen, alkyl or $-C(O)R^{10}$;

R^4 and R^5 are each hydrogen or alkyl;

R^3 is alkyl optionally substituted with one or more substituents selected from the group consisting of halo, cyano, nitro, oxo, thioxo, trimethylsilyl, $-OR^{14}$, $-OC(O)-R^{14}$, $-N(R^{14})_2$, $-C(O)R^{14}$, $-C(O)OR^{14}$, $-C(O)N(R^{14})_2$, $-N(R^{14})C(O)OR^{14}$, $-N(R^{14})C(O)R^{14}$, $-N(R^{14})S(O)_tR^{14}$ (where t is 1 or 2), $-S(O)_tOR^{14}$ (where t is 1 or 2), $-S(O)_pR^{14}$ (where p is 0, 1 or 2), and $-S(O)_tN(R^{14})_2$ (where t is 1 or 2) where each R^{14} is independently hydrogen, alkyl, haloalkyl, cycloalkyl, cycloalkylalkyl, aryl (optionally substituted with one or more halo groups), aralkyl, heterocycl, heterocyclalkyl, heteroaryl or heteroarylalkyl;

or R^3 is phenyl substituted with one or more substituents selected from the group consisting of alkyl, halo, haloalkyl, nitro, cycloalkyl, cycloalkylalkyl, $-R^8-OR^{10}$, $-R^8-C(O)OR^{10}$, $-R^8-OC(O)R^{10}$, $-R^8-O-R^9-C(O)OR^{10}$, $-R^8-O-R^9-C(O)N(R^6)R^7$, $-S(O)_pR^6$ (where p is 0, 1 or 2), $-S(O)_tN(R^6)R^7$ (where t is 1 or 2), $-R^8-N(R^6)R^7$, $-R^8-N(R^6)C(O)R^{10}$ and $-R^8-CN$;

or R^3 is heteroaryl optionally substituted with one or more substituents selected from the group consisting of alkyl, oxo, and $-R^8-OR^{10}$;

each R^6 and R^7 is independently selected from the group consisting of hydrogen, alkyl, haloalkyl, hydroxyalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted heterocycl, optionally substituted heterocyclalkyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, $-R^9-OR^{10}$, $-R^9-CN$, $-R^9-NO_2$, $-R^9-N(R^{10})_2$, $-R^9-C(O)OR^{10}$ and $-R^9-C(O)N(R^{10})_2$;

each R^8 is independently selected from the group consisting of a direct bond, an optionally substituted straight or branched alkylene chain or an optionally substituted straight or branched alkenylene chain;

each R^9 is independently selected from the group consisting of an optionally substituted

straight or branched alkylene chain or an optionally substituted straight or branched alkenylene chain; and

each R¹⁰ is independently selected from the group consisting of hydrogen, alkyl, haloalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heteroaryl, or optionally substituted heteroarylalkyl.

Of this embodiment, a specific embodiment is a compound of formula (Ib) selected from the group consisting of:

- 10 3-amino-5-[(2H,3H-4-*tert*-butoxycarbonylbenzo[1,4]oxazin-6-yl)-[(2H,3H-4-*tert*-butoxycarbonylbenzo[1,4]oxazin-6-yl)amino]-1-(3-(methyl)phenyl)carbonyl-1H-1,2,4-triazole;
- 3-amino-1-[3-[2-(1,3-dioxolan-2-yl)ethoxy]phenylcarbonyl-5-(1,4-benzodioxan-6-yl)amino-1H-1,2,4-triazole;
- 15 3-amino-1-[4-[2-(1,3-dioxolan-2-yl)ethoxy]phenylcarbonyl-5-(1,4-benzodioxan-6-yl)amino-1H-1,2,4-triazole;
- 3-amino-5-(1,4-benzodioxan-6-yl)amino-1-(4-*iso*-propylphenyl)carbonyl-1H-1,2,4-triazole;
- 3-amino-1-(3,4-dimethylphenyl)carbonyl-5-(1,4-benzodioxan-6-yl)amino-1H-1,2,4-
- 20 triazole;
- 3-amino-1-(3-(benzyloxy)phenyl)carbonyl-5-(1,4-benzodioxan-6-yl)amino-1H-1,2,4-triazole;
- 3-amino-5-(1,4-benzodioxan-6-yl)amino-1-(4-thiomethylphenyl)carbonyl-1H-1,2,4-triazole;
- 25 3-amino-5-(1,4-benzodioxan-6-yl)amino-1-[(4-fluoro-3-methyl)phenyl]carbonyl-1H-1,2,4-triazole
- 3-amino-1-(2,6-difluorophenyl)carbonyl-5-(1-methylsulfonylpiperidin-4-yl)amino-1H-1,2,4-triazole;
- 3-amino-1-(4-(dimethylamino)phenyl)carbonyl-5-(1-methylsulfonylpiperidin-4-yl)amino-
- 30 1H-1,2,4-triazole; and
- 3-amino-5-[3-(4-(2-chloro-6-fluorophenyl)piperazin-1-yl)prop-1-yl]amino-1-(3-methylphenyl)carbonyl-1H-1,2,4-triazole.

Another embodiment of the compounds of formula (Ib) are compounds of formula (Ib) wherein:

- 35 A is -C(O)-;

R^1 is cycloalkyl optionally substituted with one or more substituents selected from the group consisting of halo, haloalkyl, alkyl, oxo, $-R^8-OR^{10}$, $-R^8-C(O)OR^{10}$, $-R^8-C(O)N(R^6)R^7$, $-R^8-S(O)_pR^{10}$ (where p is 0, 1 or 2) and $-R^8-N(R^6)R^7$;

R^2 , R^4 and R^5 are each hydrogen;

5 R^3 is one of the following:

a) alkyl optionally substituted with one or more substituents selected from the group consisting of halo, cyano, nitro, oxo, thioxo, trimethylsilanyl, $-OR^{14}$, $-OC(O)-R^{14}$, $-N(R^{14})_2$, $-C(O)R^{14}$, $-C(O)OR^{14}$, $-C(O)N(R^{14})_2$, $-N(R^{14})C(O)OR^{14}$, $-N(R^{14})C(O)R^{14}$, $-N(R^{14})S(O)_tR^{14}$ (where t is 1 or 2), $-S(O)_tOR^{14}$ (where t is 1 or 2),
10 $-S(O)_pR^{14}$ (where p is 0, 1 or 2), and $-S(O)_tN(R^{14})_2$ (where t is 1 or 2) where each R^{14} is independently hydrogen, alkyl, haloalkyl, cycloalkyl, cycloalkylalkyl, aryl (optionally substituted with one or more halo groups), aralkyl, heterocyclyl, heterocylalkyl, heteroaryl or heteroarylalkyl;

b) cycloalkyl optionally substituted with one or more substituents selected
15 from the group consisting of $-R^8-OR^{10}$, alkyl, halo, haloalkyl, aryl, and aralkyl;

c) aryl substituted with one or more substituents selected from the group consisting of alkyl, halo, haloalkyl, nitro, cycloalkyl, cycloalkylalkyl, $-R^8-OR^{10}$, $-R^8-C(O)OR^{10}$, $-R^8-OC(O)R^{10}$, $-R^8-O-R^9-C(O)OR^{10}$, $-R^8-O-R^9-C(O)N(R^6)R^7$, $-S(O)_pR^6$ (where p is 0, 1 or 2), $-S(O)_tN(R^6)R^7$ (where t is 1 or 2), $-R^8-N(R^6)R^7$,
20 $-R^8-N(R^6)C(O)R^{10}$ and $-R^8-CN$;

d) aralkyl, wherein:

(1) the alkyl part of the aralkyl radical is optionally substituted with one or more substituents selected from the group consisting of halo, cyano, nitro, oxo, thioxo, trimethylsilanyl, $-OR^{14}$, $-OC(O)-R^{14}$, $-N(R^{14})_2$, $-C(O)R^{14}$, $-C(O)OR^{14}$,
25 $-C(O)N(R^{14})_2$, $-N(R^{14})C(O)OR^{14}$, $-N(R^{14})C(O)R^{14}$, $-N(R^{14})S(O)_tR^{14}$ (where t is 1 or 2), $-S(O)_tOR^{14}$ (where t is 1 or 2), $-S(O)_pR^{14}$ (where p is 0, 1 or 2), and $-S(O)_tN(R^{14})_2$ (where t is 1 or 2) where each R^{14} is independently hydrogen, alkyl, haloalkyl, cycloalkyl, cycloalkylalkyl, aryl (optionally substituted with one or more halo groups), aralkyl, heterocyclyl, heterocylalkyl, heteroaryl or heteroarylalkyl;
30 and

(2) the aryl part of the aralkyl radical is optionally substituted with one or more substituents selected from the group consisting of alkyl, alkenyl, alkynyl, halo, haloalkyl, haloalkenyl, haloalkynyl, cyano, nitro, aryl, aralkyl, aralkenyl, aralkynyl, cycloalkyl, cycloalkylalkyl, cycloalkylalkenyl, cycloalkylalkynyl,
35 heterocyclyl, heterocylalkyl, heterocylalkenyl, heterocylalkynyl,

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heteroaryl, heteroarylalkyl, heteroarylalkenyl, heteroarylalkynyl, $-R^{15}-OR^{14}$,
 $-R^{15}-OC(O)-R^{14}$, $-R^{15}-N(R^{14})_2$, $-R^{15}-C(O)R^{14}$, $-R^{15}-C(O)OR^{14}$, $-R^{15}-C(O)N(R^{14})_2$,
 $-R^{15}-O-R^{16}-C(O)N(R^{14})_2$, $-R^{15}-N(R^{14})C(O)OR^{14}$, $-R^{15}-N(R^{14})C(O)R^{14}$,
 $-R^{15}-N(R^{14})S(O)_tR^{14}$ (where t is 1 or 2), $-R^{15}-S(O)_tOR^{14}$ (where t is 1 or 2),
 $-R^{15}-S(O)_pR^{14}$ (where p is 0, 1 or 2), and $-R^{15}-S(O)_tN(R^{14})_2$ (where t is 1 or 2),
 where each R^{14} is independently hydrogen, alkyl, haloalkyl, cycloalkyl,
 cycloalkylalkyl, aryl, aralkyl, heterocyclyl, heterocyclylalkyl, heteroaryl or
 heteroarylalkyl, each R^{15} is independently a direct bond or a straight or branched
 alkylene or alkenylene chain, and R^{16} is a straight or branched alkylene or
 alkenylene chain;

e) heteroaryl optionally substituted with one or more substituents selected
 from the group consisting of alkyl, oxo, and $-R^8-OR^{10}$; or

f) heteroarylalkenyl where the heteroaryl part of the heteroarylalkyl radical is
 optionally substituted with one or more substituents selected from the group
 consisting of alkyl, halo, haloalkyl, aryl and aralkyl;

R^6 and R^7 are each independently selected from the group consisting of hydrogen, alkyl,
 alkenyl, alkynyl, haloalkyl, haloalkenyl, haloalkynyl, hydroxyalkyl, optionally
 substituted aryl, optionally substituted aralkyl, optionally substituted aralkenyl,
 optionally substituted aralkynyl, optionally substituted cycloalkyl, optionally
 substituted cycloalkylalkyl, optionally substituted cycloalkylalkenyl, optionally
 substituted cycloalkylalkynyl, optionally substituted heterocyclyl, optionally
 substituted heterocyclylalkyl, optionally substituted heterocyclylalkenyl, optionally
 substituted heterocyclylalkynyl, optionally substituted heteroaryl, optionally
 substituted heteroarylalkyl, optionally substituted heteroarylalkenyl, optionally
 substituted heteroarylalkynyl, $-R^9-OR^{10}$, $-R^9-CN$, $-R^9-NO_2$, $-R^9-N(R^{10})_2$,
 $-R^9-C(O)OR^{10}$ and $-R^9-C(O)N(R^{10})_2$;

optionally, R^6 and R^7 , together with the nitrogen to which they are attached, form an
 optionally substituted *N*-heteroaryl or an optionally substituted *N*-heterocyclyl;

each R^8 is independently selected from the group consisting of a direct bond, an
 optionally substituted straight or branched alkylene chain, an optionally
 substituted straight or branched alkenylene chain and an optionally substituted
 straight or branched alkynylene chain;

each R^9 is independently selected from the group consisting of an optionally substituted
 straight or branched alkylene chain, an optionally substituted straight or branched
 alkenylene chain and an optionally substituted straight or branched alkynylene

chain; and

each R¹⁰ is independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, haloalkyl, haloalkenyl, haloalkynyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted aralkenyl, optionally substituted aralkynyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted cycloalkylalkenyl, optionally substituted cycloalkylalkynyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heterocyclylalkenyl, optionally substituted heterocyclylalkynyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, optionally substituted heteroarylalkenyl, optionally substituted heteroarylalkynyl.

Another embodiment of the compounds of formula (Ib) are compounds of formula (Ib) wherein:

A is -C(O)-;

R¹ is cycloalkyl optionally substituted with one or more substituents selected from the group consisting of halo, haloalkyl, alkyl, oxo, -R⁸-OR¹⁰, -R⁸-C(O)OR¹⁰, -R⁸-C(O)N(R⁶)R⁷, -R⁸-S(O)_pR¹⁰ (where p is 0, 1 or 2) and -R⁸-N(R⁶)R⁷;

R², R⁴ and R⁵ are each hydrogen;

R³ is alkyl optionally substituted with one or more substituents selected from the group consisting of halo, cyano, nitro, oxo, thioxo, trimethylsilyl, -OR¹⁴, -OC(O)-R¹⁴, -N(R¹⁴)₂, -C(O)R¹⁴, -C(O)OR¹⁴, -C(O)N(R¹⁴)₂, -N(R¹⁴)C(O)OR¹⁴, -N(R¹⁴)C(O)R¹⁴, -N(R¹⁴)S(O)_tR¹⁴ (where t is 1 or 2), -S(O)_tOR¹⁴ (where t is 1 or 2), -S(O)_pR¹⁴ (where p is 0, 1 or 2), and -S(O)_tN(R¹⁴)₂ (where t is 1 or 2) where each R¹⁴ is independently hydrogen, alkyl, haloalkyl, cycloalkyl, cycloalkylalkyl, aryl (optionally substituted with one or more halo groups), aralkyl, heterocyclyl, heterocyclylalkyl, heteroaryl or heteroarylalkyl;

or R³ is phenyl substituted with one or more substituents selected from the group consisting of alkyl, halo, haloalkyl, nitro, cycloalkyl, cycloalkylalkyl, -R⁸-OR¹⁰, -R⁸-C(O)OR¹⁰, -R⁸-OC(O)R¹⁰, -R⁸-O-R⁹-C(O)OR¹⁰, -R⁸-O-R⁹-C(O)N(R⁶)R⁷, -S(O)_pR⁶ (where p is 0, 1 or 2), -S(O)_tN(R⁶)R⁷ (where t is 1 or 2), -R⁸-N(R⁶)R⁷, -R⁸-N(R⁶)C(O)R¹⁰ and -R⁸-CN;

or R³ is heteroaryl optionally substituted with one or more substituents selected from the group consisting of alkyl, oxo, and -R⁸-OR¹⁰;

each R⁶ and R⁷ is independently selected from the group consisting of hydrogen, alkyl, haloalkyl, hydroxyalkyl, optionally substituted aryl, optionally substituted aralkyl,

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optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, $-R^9-OR^{10}$, $-R^9-CN$, $-R^9-NO_2$, $-R^9-N(R^{10})_2$, $-R^9-C(O)OR^{10}$ and $-R^9-C(O)N(R^{10})_2$;

5 each R⁸ is independently selected from the group consisting of a direct bond, an optionally substituted straight or branched alkylene chain or an optionally substituted straight or branched alkenylene chain;

each R⁹ is independently selected from the group consisting of an optionally substituted straight or branched alkylene chain or an optionally substituted straight or branched alkenylene chain; and

each R¹⁰ is independently selected from the group consisting of hydrogen, alkyl, haloalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heteroaryl, or optionally substituted heteroarylalkyl.

Of this embodiment, a specific embodiment is a compound of formula (Ib) selected from the group consisting of:

3-amino-1-(4-(*tert*-butoxy)phenyl)carbonyl-5-[(3-(aminocarbonyl)bicyclo[2.2.1]hept-5-en-2-yl)amino]-1H-1,2,4-triazole;

20 3-amino-1-(3-(*tert*-butoxy)phenyl)carbonyl-5-[(3-(aminocarbonyl)bicyclo[2.2.1]hept-5-en-2-yl)amino]-1H-1,2,4-triazole;

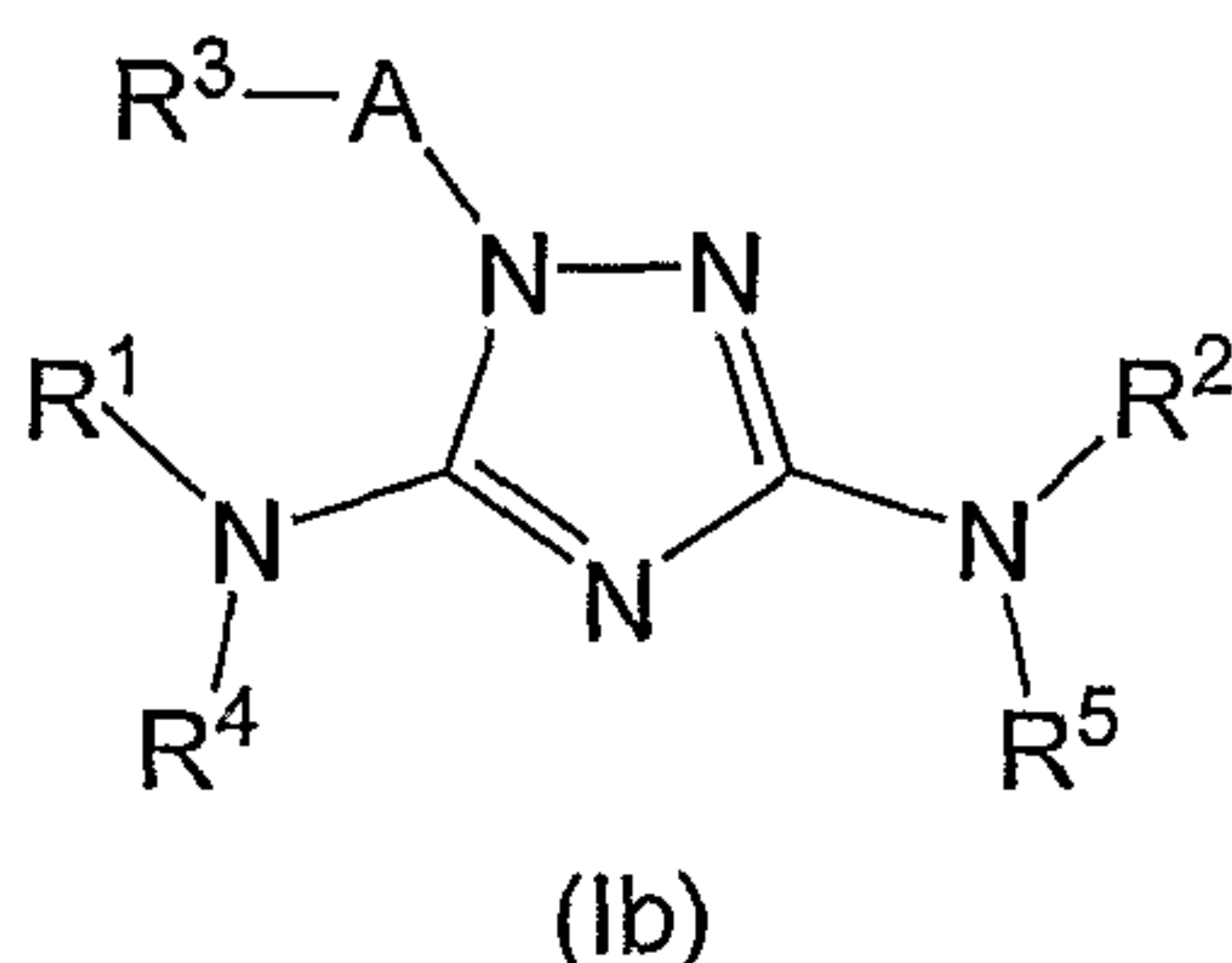
3-amino-1-(4-(dimethylamino)phenyl)carbonyl-5-[(3-(aminocarbonyl)bicyclo[2.2.1]hept-5-en-2-yl)amino]-1H-1,2,4-triazole;

3-amino-1-(3-(dimethylamino)phenyl)carbonyl-5-[(3-(aminocarbonyl)bicyclo[2.2.1]hept-5-
25 en-2-yl)amino]-1H-1,2,4-triazole;

3-amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-5-[(3-(aminocarbonyl)bicyclo[2.2.1]hept-5-en-2-yl)amino]-1H-1,2,4-triazole; and

3-amino-1-(1H-indol-6-yl)carbonyl-5-[(3-(aminocarbonyl)bicyclo[2.2.1]hept-5-en-2-yl)amino]-1H-1,2,4-triazole.

30 Another embodiment of the various aspects of the invention set forth above in the Summary of the Invention are compounds of formula (Ib):



wherein:

A is $-\text{C}(\text{O})\text{O}-$, or $-\text{C}(\text{O})\text{N}(\text{R}^6)-$;

R^1 is one of the following:

- 5 a) aryl substituted with one or more substituents selected from the group consisting of halo, haloalkyl, alkyl, optionally substituted heteroaryl, optionally substituted heterocyclyl, $-\text{R}^8-\text{OR}^{10}$, $-\text{R}^8-\text{O}-\text{R}^9-\text{OR}^{10}$, $-\text{R}^8-\text{O}-\text{R}^9-\text{O}-\text{R}^9-\text{OR}^{10}$, $-\text{R}^8-\text{O}-\text{R}^9-\text{CN}$, $-\text{R}^8-\text{O}-\text{R}^9-\text{C}(\text{O})\text{OR}^{10}$, $-\text{R}^8-\text{O}-\text{R}^9-\text{C}(\text{O})\text{N}(\text{R}^6)\text{R}^7$, $-\text{R}^8-\text{O}-\text{R}^9-\text{S}(\text{O})_p\text{R}^6$ (where p is 0, 1 or 2), $-\text{R}^8-\text{O}-\text{R}^9-\text{N}(\text{R}^6)\text{R}^7$, $-\text{R}^8-\text{O}-\text{R}^9-\text{C}(\text{NR}^{11})\text{N}(\text{R}^{11})\text{H}$, and $-\text{R}^8-\text{N}(\text{R}^6)\text{C}(\text{O})\text{R}^{10}$; or

- 10 b) heteroaryl optionally substituted with one or more substituents selected from the group consisting of alkyl, halo, oxo, $-\text{R}^8-\text{OR}^{10}$, $-\text{R}^8-\text{C}(\text{O})\text{OR}^{10}$, $-\text{R}^8-\text{C}(\text{O})\text{N}(\text{R}^6)\text{R}^7$ and $-\text{R}^8-\text{N}(\text{R}^6)\text{R}^7$;

R^2 , R^4 and R^5 are each hydrogen;

- 15 R^3 is one of the following:

- a) alkyl optionally substituted with one or more substituents selected from the group consisting of halo, cyano, nitro, oxo, thioxo, trimethylsilyl, $-\text{OR}^{14}$, $-\text{OC}(\text{O})-\text{R}^{14}$, $-\text{N}(\text{R}^{14})_2$, $-\text{C}(\text{O})\text{R}^{14}$, $-\text{C}(\text{O})\text{OR}^{14}$, $-\text{C}(\text{O})\text{N}(\text{R}^{14})_2$, $-\text{N}(\text{R}^{14})\text{C}(\text{O})\text{OR}^{14}$, $-\text{N}(\text{R}^{14})\text{C}(\text{O})\text{R}^{14}$, $-\text{N}(\text{R}^{14})\text{S}(\text{O})_t\text{R}^{14}$ (where t is 1 or 2), $-\text{S}(\text{O})_t\text{OR}^{14}$ (where t is 1 or 2), $-\text{S}(\text{O})_p\text{R}^{14}$ (where p is 0, 1 or 2), and $-\text{S}(\text{O})_t\text{N}(\text{R}^{14})_2$ (where t is 1 or 2) where each R^{14} is independently hydrogen, alkyl, haloalkyl, cycloalkyl, cycloalkylalkyl, aryl (optionally substituted with one or more halo groups), aralkyl, heterocyclyl, heterocylalkyl, heteroaryl or heteroarylalkyl;
- 20 b) cycloalkyl optionally substituted with one or more substituents selected from the group consisting of $-\text{R}^8-\text{OR}^{10}$, alkyl, halo, haloalkyl, aryl, and aralkyl;
- 25 c) aryl substituted with one or more substituents selected from the group consisting of alkyl, halo, haloalkyl, nitro, cycloalkyl, cycloalkylalkyl, $-\text{R}^8-\text{OR}^{10}$, $-\text{R}^8-\text{C}(\text{O})\text{OR}^{10}$, $-\text{R}^8-\text{OC}(\text{O})\text{R}^{10}$, $-\text{R}^8-\text{O}-\text{R}^9-\text{C}(\text{O})\text{OR}^{10}$, $-\text{R}^8-\text{O}-\text{R}^9-\text{C}(\text{O})\text{N}(\text{R}^6)\text{R}^7$, $-\text{S}(\text{O})_p\text{R}^6$ (where p is 0, 1 or 2), $-\text{S}(\text{O})_t\text{N}(\text{R}^6)\text{R}^7$ (where t is 1 or 2), $-\text{R}^8-\text{N}(\text{R}^6)\text{R}^7$, $-\text{R}^8-\text{N}(\text{R}^6)\text{C}(\text{O})\text{R}^{10}$ and $-\text{R}^8-\text{CN}$;
- 30

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d) aralkyl, wherein:

(1) the alkyl part of the aralkyl radical is optionally substituted with one or more substituents selected from the group consisting of halo, cyano, nitro, oxo, thioxo, trimethylsilanyl, $-OR^{14}$, $-OC(O)-R^{14}$, $-N(R^{14})_2$, $-C(O)R^{14}$, $-C(O)OR^{14}$, $-C(O)N(R^{14})_2$, $-N(R^{14})C(O)OR^{14}$, $-N(R^{14})C(O)R^{14}$, $-N(R^{14})S(O)_tR^{14}$ (where t is 1 or 2), $-S(O)_tOR^{14}$ (where t is 1 or 2), $-S(O)_pR^{14}$ (where p is 0, 1 or 2), and $-S(O)_tN(R^{14})_2$ (where t is 1 or 2) where each R^{14} is independently hydrogen, alkyl, haloalkyl, cycloalkyl, cycloalkylalkyl, aryl (optionally substituted with one or more halo groups), aralkyl, heterocyclyl, heterocyclalkyl, heteroaryl or heteroarylalkyl; and

(2) the aryl part of the aralkyl radical is optionally substituted with one or more substituents selected from the group consisting of alkyl, alkenyl, alkynyl, halo, haloalkyl, haloalkenyl, haloalkynyl, cyano, nitro, aryl, aralkyl, aralkenyl, aralkynyl, cycloalkyl, cycloalkylalkyl, cycloalkylalkenyl, cycloalkylalkynyl, heterocyclyl, heterocyclalkyl, heterocyclalkenyl, heterocyclalkynyl, heteroaryl, heteroarylalkyl, heteroarylalkenyl, heteroarylalkynyl, $-R^{15}-OR^{14}$, $-R^{15}-OC(O)-R^{14}$, $-R^{15}-N(R^{14})_2$, $-R^{15}-C(O)R^{14}$, $-R^{15}-C(O)OR^{14}$, $-R^{15}-C(O)N(R^{14})_2$, $-R^{15}-O-R^{16}-C(O)N(R^{14})_2$, $-R^{15}-N(R^{14})C(O)OR^{14}$, $-R^{15}-N(R^{14})C(O)R^{14}$, $-R^{15}-N(R^{14})S(O)_tR^{14}$ (where t is 1 or 2), $-R^{15}-S(O)_tOR^{14}$ (where t is 1 or 2), $-R^{15}-S(O)_pR^{14}$ (where p is 0, 1 or 2), and $-R^{15}-S(O)_tN(R^{14})_2$ (where t is 1 or 2), where each R^{14} is independently hydrogen, alkyl, haloalkyl, cycloalkyl, cycloalkylalkyl, aryl, aralkyl, heterocyclyl, heterocyclalkyl, heteroaryl or heteroarylalkyl, each R^{15} is independently a direct bond or a straight or branched alkylene or alkenylene chain, and R^{16} is a straight or branched alkylene or alkenylene chain;

e) heteroaryl optionally substituted with one or more substituents selected from the group consisting of alkyl, oxo, and $-R^8-OR^{10}$; or

f) heteroarylalkenyl where the heteroaryl part of the heteroarylalkyl radical is optionally substituted with one or more substituents selected from the group consisting of alkyl, halo, haloalkyl, aryl and aralkyl;

R^6 and R^7 are each independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, haloalkyl, haloalkenyl, haloalkynyl, hydroxyalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted aralkenyl, optionally substituted aralkynyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted cycloalkylalkenyl, optionally

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substituted cycloalkylalkynyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heterocyclylalkenyl, optionally substituted heterocyclylalkynyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, optionally substituted heteroarylalkenyl, optionally substituted heteroarylalkynyl, -R⁹-OR¹⁰, -R⁹-CN, -R⁹-NO₂, -R⁹-N(R¹⁰)₂, -R⁹-C(O)OR¹⁰ and -R⁹-C(O)N(R¹⁰)₂;

each R⁸ is independently selected from the group consisting of a direct bond, an optionally substituted straight or branched alkylene chain, an optionally substituted straight or branched alkenylene chain and an optionally substituted straight or branched alkynylene chain;

each R⁹ is independently selected from the group consisting of an optionally substituted straight or branched alkylene chain, an optionally substituted straight or branched alkenylene chain and an optionally substituted straight or branched alkynylene chain; and

each R¹⁰ is independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, haloalkyl, haloalkenyl, haloalkynyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted aralkenyl, optionally substituted aralkynyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted cycloalkylalkenyl, optionally substituted cycloalkylalkynyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heterocyclylalkenyl, optionally substituted heterocyclylalkynyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, optionally substituted heteroarylalkenyl, optionally substituted heteroarylalkynyl; and

each R¹¹ is hydrogen, alkyl, cyano, nitro or -OR¹⁰.

Another embodiment of the compounds of formula (Ib) are compounds of formula (Ib) wherein:

A is -C(O)O-, or -C(O)N(R⁶)-;

R¹ is one of the following:

a) aryl substituted with one or more substituents selected from the group consisting of halo, haloalkyl, alkyl, optionally substituted heteroaryl, optionally substituted heterocyclyl, -R⁸-OR¹⁰, -R⁸-O-R⁹-OR¹⁰, -R⁸-O-R⁹-O-R⁹-OR¹⁰, -R⁸-O-R⁹-CN, -R⁸-O-R⁹-C(O)OR¹⁰, -R⁸-O-R⁹-C(O)N(R⁶)R⁷, -R⁸-O-R⁹-S(O)_pR⁶ (where p is 0, 1 or 2), -R⁸-O-R⁹-N(R⁶)R⁷, -R⁸-O-R⁹-C(NR¹¹)N(R¹¹)H, and -R⁸-N(R⁶)C(O)R¹⁰; or

FIG. 1 is a schematic diagram of a system for monitoring and controlling a process.

b) heteroaryl optionally substituted with one or more substituents selected from the group consisting of alkyl, halo, oxo, $-R^8-OR^{10}$, $-R^8-C(O)OR^{10}$, $-R^8-C(O)N(R^6)R^7$ and $-R^8-N(R^6)R^7$;

R^2 , R^4 and R^5 are each hydrogen;

5 R^3 is cycloalkyl optionally substituted with one or more substituents selected from the group consisting of $-R^8-OR^{10}$, alkyl, halo, haloalkyl, aryl, and aralkyl;

or R^3 is phenyl substituted with one or more substituents selected from the group consisting of alkyl, halo, haloalkyl, nitro, cycloalkyl, cycloalkylalkyl, $-R^8-OR^{10}$, $-R^8-C(O)OR^{10}$, $-R^8-OC(O)R^{10}$, $-R^8-O-R^9-C(O)OR^{10}$, $-R^8-O-R^9-C(O)N(R^6)R^7$,
10 $-S(O)_pR^6$ (where p is 0, 1 or 2), $-S(O)_tN(R^6)R^7$ (where t is 1 or 2), $-R^8-N(R^6)R^7$, $-R^8-N(R^6)C(O)R^{10}$, and $-R^8-CN$;

or R^3 is heteroaryl optionally substituted with one or more substituents selected from the group consisting of alkyl, oxo, and $-R^8-OR^{10}$;

R^6 and R^7 are each independently selected from the group consisting of hydrogen, alkyl,
15 haloalkyl, hydroxyalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, $-R^9-OR^{10}$, $-R^9-CN$, $-R^9-NO_2$, $-R^9-N(R^{10})_2$, $-R^9-C(O)OR^{10}$ and $-R^9-C(O)N(R^{10})_2$;

20 each R^8 is independently selected from the group consisting of a direct bond, an optionally substituted straight or branched alkylene chain or an optionally substituted straight or branched alkenylene chain;

each R^9 is independently selected from the group consisting of an optionally substituted straight or branched alkylene chain or an optionally substituted straight or
25 branched alkenylene chain;

each R^{10} is independently selected from the group consisting of hydrogen, alkyl, haloalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted
30 heteroaryl, or optionally substituted heteroarylalkyl; and

each R^{11} is hydrogen, alkyl, cyano, nitro or $-OR^{10}$.

Of this embodiment, a specific embodiment is a compound of formula (Ib) selected from the group consisting of:

3-amino-5-(1,4-benzodioxan-6-yl)amino-1-methoxycarbonyl-1H-1,2,4-triazole;

35 5-[4-(acetyl(methyl)amino)phenyl]amino-3-amino-N-(1,3-benzodioxol-5-yl)-1H-1,2,4-

It is to be understood that the following description is intended to illustrate the invention and is not to be construed as limiting the invention.

- triazole-1-carboxamide;
 5-[4-(acetyl(methyl)amino)phenyl]amino-3-amino-N-cyclopentyl-1H-1,2,4-triazole-1-
 carboxamide;
 3-amino-N-(4-(butoxy)phenyl)-5-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-
 5 triazole-1-carboxamide;
 3-amino-N-(4-(methyl)phenyl)-5-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-
 triazole-1-carboxamide;
 3-amino-N-(4-(methoxy)phenyl)-5-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-
 triazole-1-carboxamide;
 10 3-[4-(acetyl(methyl)amino)phenyl]amino-3-amino-N-cyclohexyl-1H-1,2,4-triazole-1-
 carboxamide;
 3-amino-N-(3-(methyl)phenyl)-5-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-
 triazole-1-carboxamide;
 3-amino-N-(3,5-dimethoxyphenyl)-5-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-
 15 triazole-1-carboxamide;
 3-amino-N-cyclohexyl-5-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole-1-
 carboxamide;
 3-amino-N-cyclopentyl-5-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole-1-
 carboxamide; and
 20 3-amino-N-(1,3-benzodioxol-5-yl)-5-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-
 triazole-1-carboxamide.

Another embodiment of the various aspects of the invention set forth above in the Summary of the Invention is the group of compounds of formula (Ia) and compounds of formula (Ib) which does not include the following compounds (identified by their unique
 25 Chemical Abstracts Registry number:

- 110984-61-7; 324074-12-6; 324074-13-7; 324074-14-8; 324074-15-9;
 324074-16-0; 324074-17-1; 324074-18-2; 324074-19-3; 324074-20-6; 324074-21-7;
 324074-22-8; 324074-23-9; 324074-24-0; 324074-25-1; 324074-28-4; 324074-29-5;
 324074-30-8; 324074-31-9; 324074-32-0; 324074-33-1; 324074-34-2; 324074-35-3;
 30 324074-36-4; 324074-38-6; 324074-39-7; 324074-41-1; 324074-42-2; 324074-43-3;
 324074-44-4; 324074-45-5; 324074-46-6; 324074-47-7; 324074-48-8; 324074-50-2;
 324074-51-3; 324074-52-4; 443798-64-9; 443798-65-0; 443798-66-1; 443798-67-2;
 443798-68-3; 443798-69-4; 443798-70-7; 443798-71-8; 443798-72-9; 443798-73-0;
 443798-74-1; 443798-87-6; 443798-88-7; 443798-89-8; 443798-90-1; 443798-91-2;
 35 443798-92-3; 443798-93-4; 443798-96-7; 443798-95-6; 443798-94-5; 443798-97-8;

443798-98-9; 443798-99-0; 443799-10-8; 443799-12-0; 443799-14-2; 443799-16-4; 443799-18-6; 503546-63-2; 503546-65-4; 700811-45-6; 700812-30-2; 700812-68-6; 700812-69-7; 863030-86-8; 863030-85-7; 863030-84-6; 863030-77-7; 863030-76-6; 863030-74-4; 863030-87-9; 863030-83-5; 863030-81-3; and 863030-79-9.

5 Another embodiment of the various aspects of the invention set forth above in the Summary of the Invention is the group of compounds of formula (Ia) and compounds of formula (Ib) which does not include the following compounds:

5-amino-N-benzyl-3-(pyridin-3-ylamino)-1H-1,2,4-triazole-1-carboxamide; 5-amino-N-(2-chlorophenyl)-3-(pyridin-3-ylamino)-1H-1,2,4-triazole-1-carboxamide; 10 amino-N-(3-chlorophenyl)-3-(pyridin-3-ylamino)-1H-1,2,4-triazole-1-carboxamide; 3-amino-N-(2-chlorophenyl)-5-(pyridin-3-ylamino)-1H-1,2,4-triazole-1-carboxamide; and 5-amino-N-(4-methylphenyl)-3-(pyridin-3-ylamino)-1H-1,2,4-triazole-1-carboxamide.

Other embodiments of the invention are the pharmaceutical compositions, as set forth above in the Summary of the Invention, wherein the compounds of formula (Ia) or 15 the compounds of formula (Ib) therein are as set forth above in the embodiments of the compound of formula (Ia) or the compound of formula (Ib).

Other embodiments of the invention are the methods of treating a disease or condition associated with Axl catalytic activity in a mammal, as set forth above in the Summary of the Invention, wherein the compounds of formula (Ia) or the compounds of 20 formula (Ib) therein are as set forth above in the embodiments of the compound of formula (Ia) or the compound of formula (Ib).

Another embodiment of the invention are those methods of treating a disease or condition associated with Axl catalytic activity by administering to the mammal a therapeutically effective amount of a compound of formula (I), as set forth above in the 25 Summary of the Invention, wherein the disease or condition is selected from the group consisting of rheumatoid arthritis, vascular disease / injury (including but not limited to restenosis, atherosclerosis and thrombosis), psoriasis, visual impairment due to macular degeneration, diabetic retinopathy or retinopathy of prematurity, kidney disease (including but not limited to glomerulonephritis, diabetic nephropathy and renal transplant 30 rejection), osteoarthritis and cataracts.

Another embodiment of the invention are those methods of treating a disease or condition associated with Axl catalytic activity by administering to the mammal a therapeutically effective amount of a compound of formula (I), as set forth above in the Summary of the Invention, wherein the disease or condition is selected from the group 35 consisting of breast carcinoma, renal carcinoma, endometrial carcinoma, ovarian

carcinoma, thyroid carcinoma, non-small cell lung carcinoma, uveal melanoma, myeloid leukemia and lymphoma.

Another embodiment of the invention are those methods of treating a disease or condition associated with Axl catalytic activity by administering to the mammal of
 5 therapeutically effective amount of a compound of formula (I), as set forth above in the Summary of the Invention, wherein the disease or condition is endometriosis.

Specific embodiments of the invention are described in more detail below in the following sections.

Utility and Testing of the Compounds of the Invention

10 The oncogenic RTK, Axl, was recently identified, using a retroviral-based functional genetic screening protocol, as a regulator of haptotactic migration, which is a key event in angiogenesis. Axl inhibition by RNAi-mediated silencing blocked endothelial cell migration, proliferation and *in vitro* tube formation. These observations, which were disclosed at the American Association Cancer Research General Meeting, April 16-20,
 15 2005, Anaheim, California, and The 7th Annual Symposium on Anti-Angiogenic Agents, February 10-13, 2005, San Diego, California; (*Requirement for The Receptor Tyrosine Kinase Axl in Angiogenesis and Tumor Growth*, Holland, S.J. Powell, M.J., Franci, C., Chan, E., Frieria, A.M., Atchison, R., Xu, W., McLaughlin, J., Swift, S.E., Pali, E., Yam, G., Wong, S., Xu, X., Hu, Y., Lasaga, J., Shen, M., Yu, S., Daniel, R., Hitoshi, Y.,
 20 Bogenberger, J., Nor, J.E., Payan, D.G and Lorens, J.B), were substantiated by an *in vivo* study which demonstrated that stable, shRNAi-mediated Axl knockdown impaired formation of functional human blood vessels in a mouse model of human angiogenesis. These observations were published in a peer reviewed journal (Holland SJ, Powell MJ, Franci C, Chan EW, Frieria AM, Atchison RE, McLaughlin J, Swift SE, Pali ES, Yam G,
 25 Wong S, Lasaga J, Shen MR, Yu S, Xu W, Hitoshi Y, Bogenberger J, Nor JE, Payan DG, Lorens JB. "Multiple roles for the receptor tyrosine kinase axl in tumor formation." *Cancer Res.* (2005) Vol 65 pp 9294-303. These observations are also disclosed in U.S. Published Patent Application 2005/0118604 and European Patent Application 1 563 094. Axl signaling, therefore, impacts multiple functions required for neovascularization
 30 *in vitro*, and regulates angiogenesis *in vivo*. Regulation of these pro-angiogenic processes required the catalytic activity of Axl. Thus, Axl-mediated angiogenic stimulation would be amenable to modulation by a small molecule inhibitor of Axl catalytic activity.

The compounds of the invention are small molecule inhibitors of Axl catalytic

activity, and are therefore useful in treating diseases and conditions which are associated with Axl catalytic activity including those diseases and conditions which are characterized by angiogenesis and/or cell proliferation. Such diseases and conditions include, but are not limited to, solid tumors, including, but not limited to, breast, renal, endometrial, ovarian, thyroid, non-small cell lung carcinoma and uveal melanoma; liquid tumors, including but not limited to, leukemias (particularly myeloid leukemias) and lymphomas; endometriosis, vascular disease / injury (including but not limited to restenosis, atherosclerosis and thrombosis), psoriasis; visual impairment due to macular degeneration; diabetic retinopathy and retinopathy of prematurity; kidney disease (including but not limited to glomerulonephritis, diabetic nephropathy and renal transplant rejection), rheumatoid arthritis; osteoarthritis and cataracts.

The following animal models provide guidance to one of ordinary skill in the art in testing the compounds of the invention for their use in treating the disease or condition indicated.

The compounds of the invention may be tested for their use in treating leukemias and lymphomas by testing the compounds in the xenograft in SCID mouse model using human Axl-expressing cancer cell lines including, but not limited to, HeLa, MDA-MB-231, SK-OV-3, OVCAR-8, DU145 and H1299.

The compounds of the invention may be tested for their use in treating leukemias in the xenograft in SCID mouse model using human Axl-expressing AML and CML leukemia cell lines.

The compounds of the invention may be tested for their use in treating endometriosis by using the syngenic mouse model of endometriosis (see Somigliana, E. *et al.*, "Endometrial ability to implant in ectopic sites can be prevented by interleukin-12 in a murine model of endometriosis", *Hum. Reprod.* (1999), Vol. 14, NO. 12, pp. 2944-50). The compounds may also be tested for their use in treating endometriosis by using the rat model of endometriosis (see Lebovic, D.I. *et al.*, "Peroxisome proliferator-activated receptor-gamma induces regression of endometrial explants in a rat model of endometriosis", *Fertil. Steril.* (2004), 82 Suppl 3, pp. 1008-13).

The compounds of the invention may be tested for their use in treating restenosis by using the balloon-injured rat carotid artery model (see Kim, D.W. *et al.*, "Novel oral formulation of paclitaxel inhibits neointimal hyperplasia in a rat carotid artery injury model", *Circulation* (2004), Vol. 109, No. 12, pp. 1558-63, Epub 2004 Mar 8).

The compounds of the invention may also be tested for their use in treating restenosis by using the percutaneous transluminal coronary angioplasty in apoE

deficient mouse model (see von der Thusen, J.H. *et al.*, "Adenoviral transfer of endothelial nitric oxide synthase attenuates lesion formation in a novel murine model of postangioplasty restenosis", *Arterioscler. Thromb. Vasc. Biol.* (2004), Vol. 24, No. 2, pp. 357-62).

5 The compounds of the invention may be tested for their use in treating atherosclerosis/thrombosis in the ApoE deficient mouse model (see Nakashima, Y. *et al.*, "ApoE-deficient mice develop lesions of all phases of atherosclerosis throughout the arterial tree", *Arterioscler. Thromb.* (1994), Vol. 14, No. 1, pp. 133-40).

10 The compounds of the invention may also be tested for their use in treating thrombosis using the collagen-epinephrin-induced pulmonary thromboembolism model and the stasis induced venous thrombosis model (see Angelillo-Scherrer A. *et al.*, "Role of Gas6 receptors in platelet signaling during thrombus stabilization and implications for antithrombotic therapy", *J Clin Invest.* (2005) Vol 115 pp237-46).

15 The compounds of the invention may be tested for their use in treating psoriasis by using the SCID mouse model or the human skin model of psoriasis (see Nickoloff, B.J. *et al.*, "Severe combined immunodeficiency mouse and human psoriatic skin chimeras. Validation of a new animal model", *Am. J. Pathol.* (1995), Vol. 146, No. 3, pp. 580-8).

20 The compounds of the invention may be tested for their use in treating age-related macular degeneration or diabetic retinopathy by using the rat corneal angiogenesis model (see Sarayba MA, Li L, Tungsiripat T, Liu NH, Sweet PM, Patel AJ, Osann KE, Chittiboyina A, Benson SC, Pershadsingh HA, Chuck RS. Inhibition of corneal neovascularization by a peroxisome proliferator-activated receptor-gamma ligand. *Exp Eye Res.* 2005 Mar;80(3):435-42) or the laser-induced mouse choroidal neovascularization model (see Bora, P.S., *et al.*, "Immunotherapy for choroidal neovascularization in a laser-induced mouse model simulating exudative (wet) macular degeneration", *Proc. Natl. Acad. Sci. U. S. A.* (2003), Vol. 100, No. 5, pp. 2679-84, Epub 2003 Feb 14).

30 The compounds of the invention may be tested for their use in treating retinopathy of prematurity in the mouse retinopathy of prematurity model (see Smith, L.E. *et al.*, "Oxygen-induced retinopathy in the mouse", *Invest. Ophthalmol. Vis. Sci.* (1994), Vol. 35, No. 1, pp. 101-11).

35 The compounds of the invention may be tested for their use in treating glomerulonephritis or diabetic nephropathy in the rat anti-Thy1.1-induced experimental mesengial proliferative glomerulonephritis model (see Smith, L.E. *et al.* cited above).

The compounds of the invention may be tested for their use in treating renal transplant rejection by using a rat model of chronic renal transplant rejection (see Yin, J.L. *et al.*, "Expression of growth arrest-specific gene 6 and its receptors in a rat model of chronic renal transplant rejection", *Transplantation* (2002), Vol. 73, No. 4, pp. 657-60).

5 The compounds of the invention may be tested for their use in treating rheumatoid arthritis by using the CAIA mouse model (see Phadke, K. *et al.*, "Evaluation of the effects of various anti-arthritic drugs on type II collagen-induced mouse arthritis model", *Immunopharmacology* (1985), Vol. 10, No. 1, pp. 51-60).

10 The compounds of the invention may be tested for their use in treating osteoarthritis by using the STR/ORT mouse model (see Brewster, M. *et al.*, "Ro 32-3555, an orally active collagenase selective inhibitor, prevents structural damage in the STR/ORT mouse model of osteoarthritis", *Arthritis. Rheum.* (1998), Vol. 41, No. 9, pp. 1639-44).

15 The compounds of the invention may be tested for their use in treating cataracts by using the H₂O₂-induced model (see Kadoya, K. *et al.*, "Role of calpain in hydrogen peroxide induced cataract", *Curr. Eye Res.* (1993), Vol. 12, No. 4, pp. 341-6) or the Emory mouse model (see Sheets, N.L. *et al.*, "Cataract- and lens-specific upregulation of ARK receptor tyrosine kinase in Emory mouse cataract", *Invest. Ophthalmol. Vis. Sci.* (2002), Vol. 43, No. 6, pp. 1870-5).

20 Pharmaceutical Compositions of the Invention and Administration

Administration of the compounds of the invention, or their pharmaceutically acceptable salts, in pure form or in an appropriate pharmaceutical composition, can be carried out via any of the accepted modes of administration of agents for serving similar utilities. The pharmaceutical compositions of the invention can be prepared by

25 combining a compound of the invention with an appropriate pharmaceutically acceptable carrier, diluent or excipient, and may be formulated into preparations in solid, semi-solid, liquid or gaseous forms, such as tablets, capsules, powders, granules, ointments, solutions, suppositories, injections, inhalants, gels, microspheres, and aerosols. Typical routes of administering such pharmaceutical compositions include, without limitation,

30 oral, topical, transdermal, inhalation, parenteral, sublingual, buccal, rectal, vaginal, and intranasal. The term parenteral as used herein includes subcutaneous injections, intravenous, intramuscular, intrasternal injection or infusion techniques. Pharmaceutical compositions of the invention are formulated so as to allow the active ingredients contained therein to be bioavailable upon administration of the composition to a patient.

Compositions that will be administered to a subject or patient take the form of one or more dosage units, where for example, a tablet may be a single dosage unit, and a container of a compound of the invention in aerosol form may hold a plurality of dosage units. Actual methods of preparing such dosage forms are known, or will be apparent, to those skilled in this art; for example, see *Remington: The Science and Practice of Pharmacy*, 20th Edition (Philadelphia College of Pharmacy and Science, 2000). The composition to be administered will, in any event, contain a therapeutically effective amount of a compound of the invention, or a pharmaceutically acceptable salt thereof, for treatment of a disease or condition of interest in accordance with the teachings of this invention.

A pharmaceutical composition of the invention may be in the form of a solid or liquid. In one aspect, the carrier(s) are particulate, so that the compositions are, for example, in tablet or powder form. The carrier(s) may be liquid, with the compositions being, for example, an oral oil, injectable liquid or an aerosol, which is useful in, for example, inhalatory administration.

When intended for oral administration, the pharmaceutical composition is preferably in either solid or liquid form, where semi-solid, semi-liquid, suspension and gel forms are included within the forms considered herein as either solid or liquid.

As a solid composition for oral administration, the pharmaceutical composition may be formulated into a powder, granule, compressed tablet, pill, capsule, chewing gum, wafer or the like form. Such a solid composition will typically contain one or more inert diluents or edible carriers. In addition, one or more of the following may be present: binders such as carboxymethylcellulose, ethyl cellulose, microcrystalline cellulose, gum tragacanth or gelatin; excipients such as starch, lactose or dextrans, disintegrating agents such as alginic acid, sodium alginate, Primogel, corn starch and the like; lubricants such as magnesium stearate or Sterotex; glidants such as colloidal silicon dioxide; sweetening agents such as sucrose or saccharin; a flavoring agent such as peppermint, methyl salicylate or orange flavoring; and a coloring agent.

When the pharmaceutical composition is in the form of a capsule, for example, a gelatin capsule, it may contain, in addition to materials of the above type, a liquid carrier such as polyethylene glycol or oil.

The pharmaceutical composition may be in the form of a liquid, for example, an elixir, syrup, solution, emulsion or suspension. The liquid may be for oral administration or for delivery by injection, as two examples. When intended for oral administration, preferred composition contain, in addition to the present compounds, one or more of a

sweetening agent, preservatives, dye/colorant and flavor enhancer. In a composition intended to be administered by injection, one or more of a surfactant, preservative, wetting agent, dispersing agent, suspending agent, buffer, stabilizer and isotonic agent may be included.

5 The liquid pharmaceutical compositions of the invention, whether they be solutions, suspensions or other like form, may include one or more of the following adjuvants: sterile diluents such as water for injection, saline solution, preferably physiological saline, Ringer's solution, isotonic sodium chloride, fixed oils such as synthetic mono or diglycerides which may serve as the solvent or suspending medium, 10 polyethylene glycols, glycerin, propylene glycol or other solvents; antibacterial agents such as benzyl alcohol or methyl paraben; antioxidants such as ascorbic acid or sodium bisulfite; chelating agents such as ethylenediaminetetraacetic acid; buffers such as acetates, citrates or phosphates and agents for the adjustment of tonicity such as sodium chloride or dextrose. The parenteral preparation can be enclosed in ampoules, 15 disposable syringes or multiple dose vials made of glass or plastic. Physiological saline is a preferred adjuvant. An injectable pharmaceutical composition is preferably sterile.

A liquid pharmaceutical composition of the invention intended for either parenteral or oral administration should contain an amount of a compound of the invention such that a suitable dosage will be obtained. Typically, this amount is at least 20 0.01% of a compound of the invention in the composition. When intended for oral administration, this amount may be varied to be between 0.1 and about 70% of the weight of the composition. Preferred oral pharmaceutical compositions contain between about 4% and about 75% of the compound of the invention. Preferred pharmaceutical compositions and preparations according to the present invention are prepared so that a 25 parenteral dosage unit contains between 0.01 to 10% by weight of the compound prior to dilution of the invention.

The pharmaceutical composition of the invention may be intended for topical administration, in which case the carrier may suitably comprise a solution, emulsion, ointment or gel base. The base, for example, may comprise one or more of the 30 following: petrolatum, lanolin, polyethylene glycols, bee wax, mineral oil, diluents such as water and alcohol, and emulsifiers and stabilizers. Thickening agents may be present in a pharmaceutical composition for topical administration. If intended for transdermal administration, the composition may include a transdermal patch or iontophoresis device. Topical formulations may contain a concentration of the compound of the invention from 35 about 0.1 to about 10% w/v (weight per unit volume).

The pharmaceutical composition of the invention may be intended for rectal administration, in the form, for example, of a suppository, which will melt in the rectum and release the drug. The composition for rectal administration may contain an oleaginous base as a suitable nonirritating excipient. Such bases include, without
5 limitation, lanolin, cocoa butter and polyethylene glycol.

The pharmaceutical composition of the invention may include various materials, which modify the physical form of a solid or liquid dosage unit. For example, the composition may include materials that form a coating shell around the active ingredients. The materials that form the coating shell are typically inert, and may be
10 selected from, for example, sugar, shellac, and other enteric coating agents. Alternatively, the active ingredients may be encased in a gelatin capsule.

The pharmaceutical composition of the invention in solid or liquid form may include an agent that binds to the compound of the invention and thereby assists in the delivery of the compound. Suitable agents that may act in this capacity include a
15 monoclonal or polyclonal antibody, a protein or a liposome.

The pharmaceutical composition of the invention may consist of dosage units that can be administered as an aerosol. The term aerosol is used to denote a variety of systems ranging from those of colloidal nature to systems consisting of pressurized packages. Delivery may be by a liquefied or compressed gas or by a suitable pump
20 system that dispenses the active ingredients. Aerosols of compounds of the invention may be delivered in single phase, bi-phasic, or tri-phasic systems in order to deliver the active ingredient(s). Delivery of the aerosol includes the necessary container, activators, valves, subcontainers, and the like, which together may form a kit. One of ordinary skill in the art, without undue experimentation may determine preferred aerosols.

The pharmaceutical compositions of the invention may be prepared by methodology well known in the pharmaceutical art. For example, a pharmaceutical composition intended to be administered by injection can be prepared by combining a compound of the invention with sterile, distilled water so as to form a solution. A surfactant may be added to facilitate the formation of a homogeneous solution or
30 suspension. Surfactants are compounds that non-covalently interact with the compound of the invention so as to facilitate dissolution or homogeneous suspension of the compound in the aqueous delivery system.

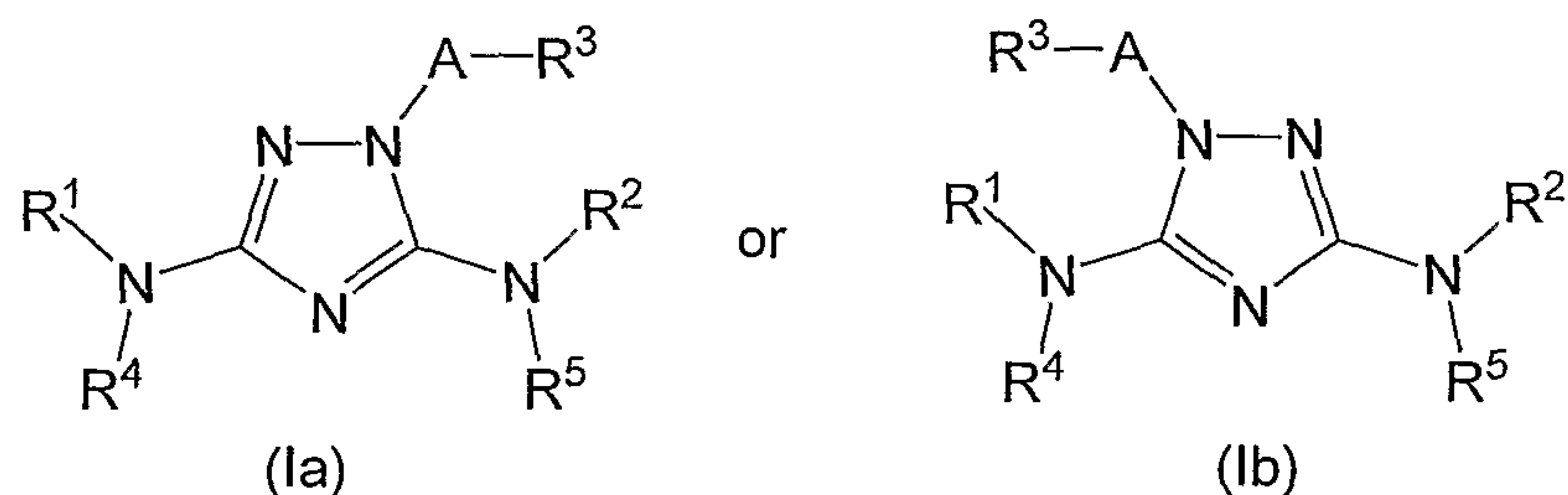
The compounds of the invention, or their pharmaceutically acceptable salts, are administered in a therapeutically effective amount, which will vary depending upon a
35 variety of factors including the activity of the specific compound employed; the metabolic

stability and length of action of the compound; the age, body weight, general health, sex, and diet of the patient; the mode and time of administration; the rate of excretion; the drug combination; the severity of the particular disorder or condition; and the subject undergoing therapy. Generally, a therapeutically effective daily dose is (for a 70 kg mammal) from about 0.001 mg/kg (*i.e.*, 0.7 mg) to about 100 mg/kg (*i.e.*, 7.0 gm); preferably a therapeutically effective dose is (for a 70 kg mammal) from about 0.01 mg/kg (*i.e.*, 7 mg) to about 50 mg/kg (*i.e.*, 3.5 gm); more preferably a therapeutically effective dose is (for a 70 kg mammal) from about 1 mg/kg (*i.e.*, 70 mg) to about 25 mg/kg (*i.e.*, 1.75 gm).

Compounds of the invention, or pharmaceutically acceptable derivatives thereof, may also be administered simultaneously with, prior to, or after administration of one or more other therapeutic agents. Such combination therapy includes administration of a single pharmaceutical dosage formulation which contains a compound of the invention and one or more additional active agents, as well as administration of the compound of the invention and each active agent in its own separate pharmaceutical dosage formulation. For example, a compound of the invention and the other active agent can be administered to the patient together in a single oral dosage composition such as a tablet or capsule, or each agent administered in separate oral dosage formulations. Where separate dosage formulations are used, the compounds of the invention and one or more additional active agents can be administered at essentially the same time, *i.e.*, concurrently, or at separately staggered times, *i.e.*, sequentially; combination therapy is understood to include all these regimens.

Preparation of the Compounds of the Invention

The following Reaction Schemes illustrate methods to make compounds of this invention, *i.e.*, compounds of formula (Ia) and compounds of formula (Ib):



where A, R¹, R², R³, R⁴ and R⁵ are described above in the Summary of the Invention, as isolated stereoisomers or tautomers thereof or mixtures thereof, or as pharmaceutically acceptable salts, hydrates, solvates, *N*-oxides or prodrugs thereof. It is understood that

in the following Reaction Schemes, combinations of substituents and/or variables of the depicted formulae are permissible only if such contributions result in stable compounds.

It will also be appreciated by those skilled in the art that in the processes described below the functional groups of intermediate compounds may need to be protected by suitable protecting groups. Such functional groups include hydroxy, amino, mercapto and carboxylic acid. Suitable protecting groups for hydroxy include trialkylsilyl or diarylalkylsilyl (for example, *t*-butyldimethylsilyl, *t*-butyldiphenylsilyl or trimethylsilyl), tetrahydropyranyl, benzyl, and the like. Suitable protecting groups for amino, amidino and guanidino include *t*-butoxycarbonyl, benzyloxycarbonyl, and the like. Suitable protecting groups for mercapto include -C(O)-R" (where R" is alkyl, aryl or arylalkyl), *p*-methoxybenzyl, trityl and the like. Suitable protecting groups for carboxylic acid include alkyl, aryl or arylalkyl esters.

Protecting groups may be added or removed in accordance with standard techniques, which are known to one of ordinary skill in the art and as described herein.

The use of protecting groups is described in detail in Green, T.W. and P.G.M. Wuts, *Protective Groups in Organic Synthesis* (1999), 3rd Ed., Wiley. As one of skill in the art would appreciate, the protecting group may also be a polymer resin such as a Wang resin, Rink resin or a 2-chlorotrityl-chloride resin.

It will also be appreciated by those skilled in the art, although such protected derivatives of compounds of this invention may not possess pharmacological activity as such, they may be administered to a mammal and thereafter metabolized in the body to form compounds of the invention which are pharmacologically active. Such derivatives may therefore be described as "prodrugs". All prodrugs of compounds of this invention are included within the scope of the invention.

It is understood that one of ordinary skill in the art would be able to make the compounds of the invention by methods similar to the methods described herein or by methods known to one of ordinary skill in the art. It is also understood that one of ordinary skill in the art would be able to make in a similar manner as described below other compounds of formula (Ia) and formula (Ib) not specifically illustrated below by using the appropriate starting components and modifying the parameters of the synthesis as needed. In general, starting components may be obtained from sources such as Sigma Aldrich, Lancaster Synthesis, Inc., Maybridge, Matrix Scientific, TCI, and Fluorochem USA, etc. or synthesized according to sources known to those skilled in the art (see, for example, *Advanced Organic Chemistry: Reactions, Mechanisms, and Structure*, 5th edition (Wiley, December 2000)) or prepared as described in this

invention. ^1H NMR spectra were recorded in CDCl_3 , $\text{DMSO}-d_6$, CD_3OD , $\text{Acetone}-d_6$ with trimethylsilane (TMS) as internal reference using Gemini 300 MHz instrument. Reagents and solvents were purchased from commercial sources and used without further purification. Flash column chromatography was conducted using silica gel (230-400 mesh) under a positive pressure of nitrogen. LCMS spectra for purity and mass were recorded using Waters LCMS instruments. Deionized water was used to dilute the reactions and wash the products. Brine used was prepared by dissolving sodium chloride into deionized water to saturation point.

In the following Reaction Schemes, the following common abbreviations are used:

HOAt for 1-hydroxy-7-azabenzotriazole

Bn for benzyl

EDCI.HCl for 1-ethyl-3-(3-dimethylaminopropyl)carbodiimide hydrochloride

$i\text{Pr}_2\text{NEt}$ for N,N-diisopropylethylamine

DMF for N,N-Dimethylformamide

rt for ambient temperature

MeOH for methanol

THF for tetrahydrofuran

TFA for trifluoroacetic acid

THP for tetrahydropyran

BOC for benzyloxycarbonyl

$\text{Pd}(\text{dba})_2$ for bis(dibenzylideneacetone)palladium

EtOAc for ethyl acetate

2-PrOH for *iso*-propylalcohol, isopropanol or 2-propanol

$\text{Ph}_2\text{P}(\text{CH}_2)_4\text{PPh}_2$ for 1,4-bis(diphenylphosphino)butane

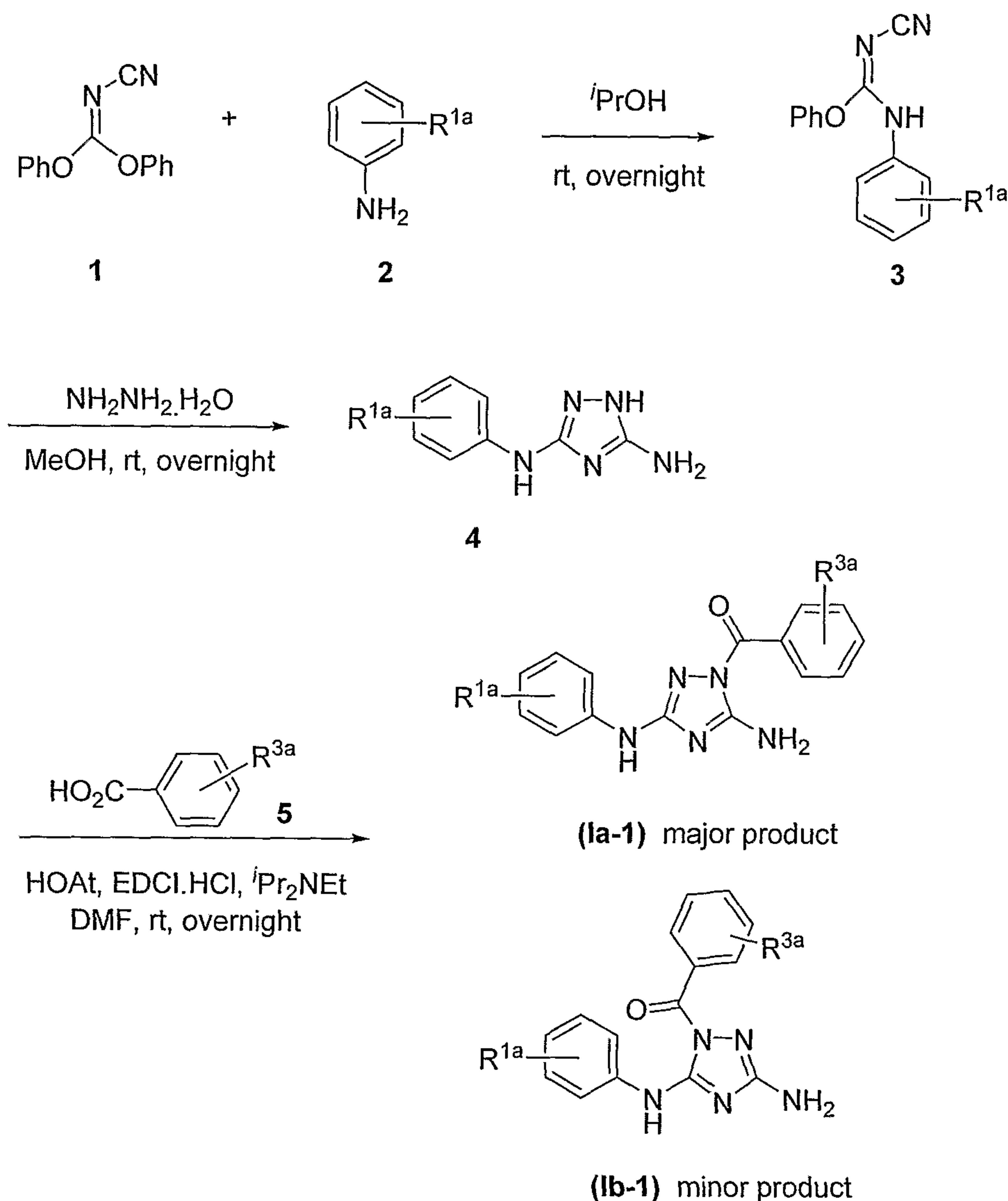
HOAc for acetic acid

Compounds **(Ia-1)** and **(Ib-1)**, as set forth below in Reaction Scheme 1, are compounds of formula (Ia) and (Ib), as set forth above in the Summary of the Invention, and are prepared as illustrated below in Reaction Scheme 1 where R^{1a} is one or more substituents selected from the group consisting of halo, haloalkyl, alkyl, optionally substituted heteroaryl, optionally substituted heterocyclyl, $-\text{R}^8-\text{OR}^{10}$, $-\text{R}^8-\text{O}-\text{R}^9-\text{OR}^{10}$, $-\text{R}^8-\text{O}-\text{R}^9-\text{O}-\text{R}^9-\text{OR}^{10}$, $-\text{R}^8-\text{O}-\text{R}^9-\text{CN}$, $-\text{R}^8-\text{O}-\text{R}^9-\text{C}(\text{O})\text{OR}^{10}$, $-\text{R}^8-\text{O}-\text{R}^9-\text{C}(\text{O})\text{N}(\text{R}^6)\text{R}^7$, $-\text{R}^8-\text{O}-\text{R}^9-\text{S}(\text{O})_p\text{R}^6$ (where p is 0, 1 or 2), $-\text{R}^8-\text{O}-\text{R}^9-\text{N}(\text{R}^6)\text{R}^7$, $-\text{R}^8-\text{O}-\text{R}^9-\text{C}(\text{NR}^{11})\text{N}(\text{R}^{11})\text{H}$, and $-\text{R}^8-\text{N}(\text{R}^6)\text{C}(\text{O})\text{R}^{10}$, wherein each R^6 , R^7 , R^8 , R^9 , R^{10} and R^{11} are as defined above in the Summary of the Invention and R^{3a} is one or more substituents selected from the

group consisting of halo, haloalkyl, alkyl, optionally substituted heteroaryl, optionally substituted heterocyclyl, $-R^8-OR^{10}$, $-R^8-O-R^9-OR^{10}$, $-R^8-O-R^9-O-R^9-OR^{10}$, $-R^8-O-R^9-CN$, $-R^8-O-R^9-C(O)OR^{10}$, $-R^8-O-R^9-C(O)N(R^6)R^7$, $-R^8-O-R^9-S(O)_pR^6$ (where p is 0, 1 or 2), $-R^8-O-R^9-N(R^6)R^7$, $-R^8-O-R^9-C(NR^{11})N(R^{11})H$, and $-R^8-N(R^6)C(O)R^{10}$ where each R^6 , R^7 ,

5 R^8 , R^9 , R^{10} and R^{11} is as defined above in the Summary of the Invention:

REACTION SCHEME 1



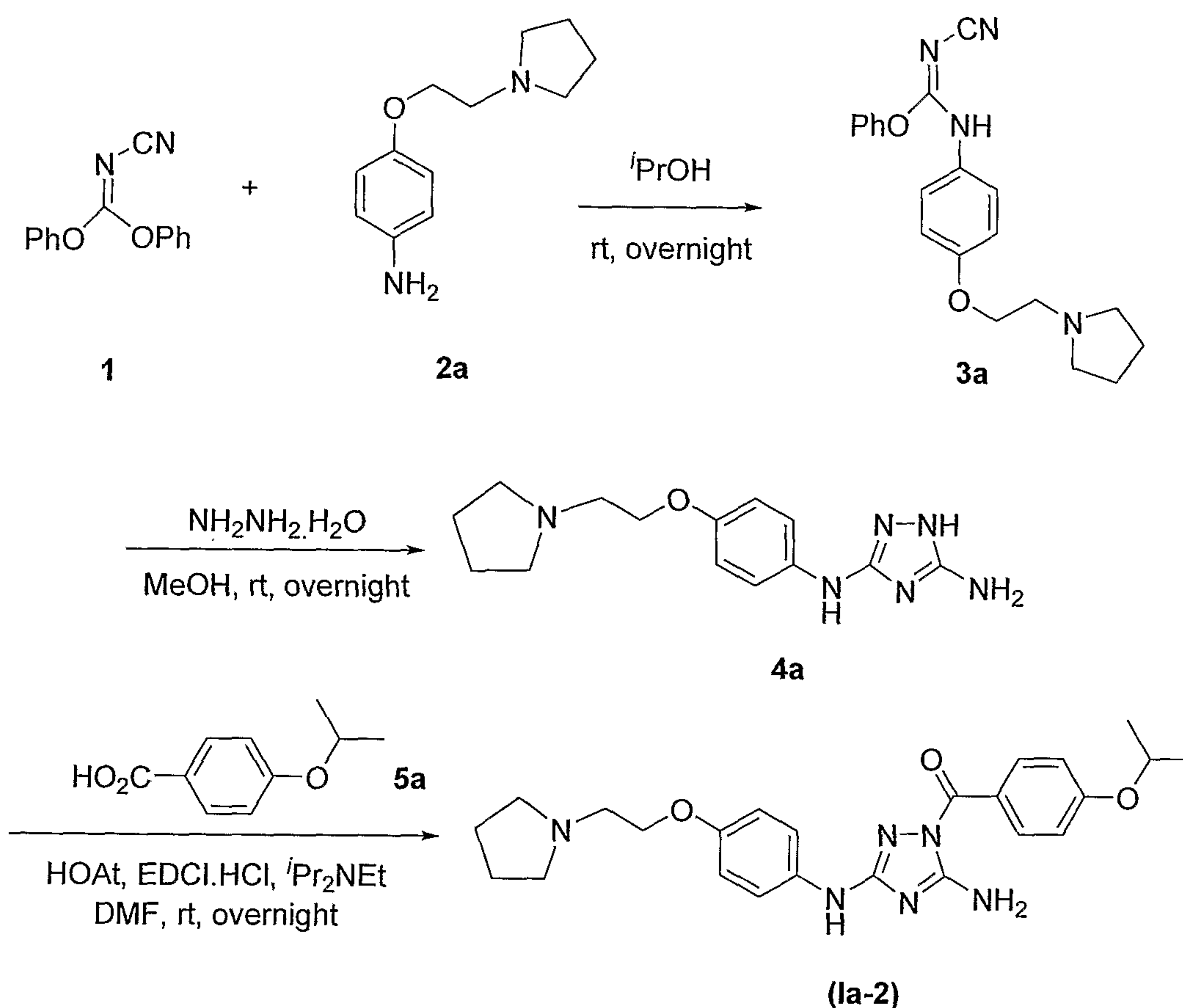
In general, diphenylcyanocarbonimidate **1** (1.1 equiv) and appropriately substituted aniline **2** (1 equiv) are stirred in isopropyl alcohol at ambient temperature overnight. The diarylisourea product, **3**, generally precipitates and isolation can be accomplished via filtration, washing with an appropriate solvent, and drying. Hydrazine hydrate (2 equiv) is added to a slurry of **3** in an alcohol or other appropriate solvent. Generally, the ring formation reaction occurs at ambient temperature and the product

triazole, **4**, can be isolated by standard isolation techniques. The 3,5-diamino-1,2,4-triazole, **4**, is then acylated with an appropriately substituted benzoic acid **5** to provide a mixture of the acylated products, (**la-1**) and (**lb-1**), which can be separated and isolated by standard separation and isolation techniques, such as chromatography.

5 Compounds (**la-2**), as set forth below in Reaction Scheme 1A, are compounds of formula (Ia), as set forth above in the Summary of the Invention, and are prepared as illustrated below in Reaction Scheme 1A. For purposes of convenience, the minor product, *i.e.*, the corresponding compound of formula (Ib), is not illustrated in Reaction Scheme 1A, but it is understood that the compound is prepared as well by the method
10 disclosed therein and is isolated and separated from compound (**la-2**) by standard isolation and separation techniques.

REACTION SCHEME 1A

Preparation of 5-Amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (**la-2**)



Specifically, diphenylcyanocarbonimidate **1** (1.1 equiv) and aniline **2a** (1 equiv) were stirred in *iso*-propyl alcohol at ambient temperature overnight. The white

precipitate was filtered and washed with *iso*-propyl alcohol and dried to yield **3a**. Then hydrazine hydrate (2 equiv) was added to a slurry of **3a** in methanol. After stirring at ambient temperature overnight the solution was concentrated and the oily residue was triturated with diethyl ether to remove impurities and give **4a** as a white solid. The 3,5-diamino-1,2,4-triazole compound **4a** was then acylated with benzoic acid **5a** mediated by HOAt /EDCI.HCl and *i*Pr₂NEt in anhydrous DMF. The reaction mixture was diluted with ethyl acetate and washed with aqueous sodium bicarbonate. The organic layer was separated and concentrated. Purification of the residue by silica gel column chromatography in 5% triethylamine/ethyl acetate gave 5-amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (**1a-2**), as a yellow solid (38% yield); ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.01 (s, 1H), 8.22 (d, *J* = 8.7 Hz, 2H), 7.69 (br. s, 2H), 7.41 (d, *J* = 8.7 Hz, 2H), 7.04 (d, *J* = 8.7 Hz, 2H), 6.82 (d, *J* = 8.7 Hz, 2H), 4.78 (m, 1H), 3.98 (br. s, 2H), 2.77 (br. s, 2H), 2.48 (m, 4H), 1.67 (m, 4H), 1.30 (d, *J* = 6.0 Hz, 6H) ppm; MS (ES) 451.4 (M+H), 449.0 (M-H).

In a similar manner as described above in Reaction Scheme 1 and Reaction Scheme 1A, the following compounds of formula (Ia) and formula (Ib) were made with the appropriately substituted starting materials. The number following each compound below refers to its number in Tables 1-10, as discussed in more detail below.

5-Amino-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1-(4-(*tert*-butoxy)phenyl)carbonyl-1H-1,2,4-triazole (compound #1), as a yellow solid (52% yield); ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.03 (s, 1H), 8.17 (d, *J* = 9.0 Hz, 2H), 7.72 (br. s, 2H), 7.41 (d, *J* = 9.0 Hz, 2H), 7.12 (d, *J* = 9.0 Hz, 2H), 6.81 (d, *J* = 9.0 Hz, 2H), 3.99 (t, *J* = 5.6 Hz, 2H), 2.80 (br. s, 2H), 2.55 (m, 4H), 1.69 (m, 4H), 1.41 (s, 9H) ppm; MS (ES) 465.2 (M+H), 463.3 (M-H);

5-Amino-1-(4-(dimethylamino)phenyl)carbonyl-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #2), as a yellow solid (65% yield); ¹H-NMR (DMSO-*d*₆, 300 MHz) 8.97 (s, 1H), 8.25 (d, *J* = 9.0 Hz, 2H), 7.63 (br. s, 2H), 7.44 (d, *J* = 9.0 Hz, 2H), 6.84 (d, *J* = 9.3 Hz, 2H), 6.77 (d, *J* = 9.3 Hz, 2H), 3.98 (t, *J* = 6.1 Hz, 2H), 2.60 (t, *J* = 6.1 Hz, 2H), 2.42 (m, 4H), 1.49 (m, 4H), 1.38 (m, 2H) ppm; MS (ES) 450.2 (M+H), 448.0 (M-H);

5-Amino-1-(1H-indol-5-yl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #3), ¹H-NMR (DMSO-*d*₆, 300 MHz) 11.48 (s, 1H), 9.03 (s, 1H), 8.69 (s, 1H), 8.14 (s, 1H), 7.95 (d, *J* = 8.4 Hz, 1H), 7.71 (s, 2H), 7.49 (d, *J* = 9.0 Hz, 2H), 7.46 (d, *J* = 8.1 Hz, 1H), 6.81 (d, *J* = 8.7 Hz, 2H), 6.62 (s, 1H), 4.02 (t, *J* = 5.6 Hz, 2H), 2.91 (t, *J* = 5.6 Hz, 2H), 2.68 (m, 4H), 1.72 (m, 4H) ppm; MS (ES) 432.9 (M+H),

430.5 (M-H);

5-Amino-1-(4-(dimethylamino)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #4), ¹H-NMR (DMSO-*d*₆, 300 MHz) 8.96 (s, 1H), 8.24 (d, *J* = 7.8 Hz, 2H), 7.62 (s, 2H), 7.44 (d, *J* = 7.8 Hz, 2H), 6.83 (d, *J* = 7.8 Hz, 2H), 6.76 (d, *J* = 8.1 Hz, 2H), 3.99 (t, *J* = 5.7 Hz, 2H), 3.03 (s, 6H), 2.81 (m, 2H), 2.55 (m, 4H), 1.68 (m, 4H) ppm; MS (ES) 436.2 (M+H), 434.1 (M-H);

5-Amino-1-(1H-indol-6-yl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #5), ¹H-NMR (DMSO-*d*₆, 300 MHz) 11.6 (s, 1H), 9.04 (s, 1H), 8.50 (s, 1H), 8.13 (s, 1H), 7.85 (d, *J* = 8.7 Hz, 1H), 7.73 (s, 2H), 7.63 (d, *J* = 8.7 Hz, 1H), 7.47 (d, *J* = 8.7 Hz, 2H), 6.84 (d, *J* = 8.4 Hz, 2H), 6.54 (s, 1H), 4.02 (t, *J* = 5.6 Hz, 2H), 2.93 (t, *J* = 5.6 Hz, 2H), 2.69 (m, 4H), 1.73 (m, 4H) ppm; MS (ES) 432.9 (M+H), 430.5 (M-H);

5-Amino-1-(1H-indol-2-yl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #6), ¹H-NMR (DMSO-*d*₆, 300 MHz) 11.91 (s, 1H), 9.15 (s, 1H), 8.15 (s, 1H), 8.00 (s, 1H), 7.81 (s, 2H), 7.55 (d, *J* = 8.4 Hz, 2H), 7.51 (d, *J* = 11.7 Hz, 1H), 7.29 (t, *J* = 8.1 Hz, 1H), 7.10 (t, *J* = 7.8 Hz, 1H), 6.95 (d, *J* = 8.7 Hz, 2H), 4.06 (t, *J* = 5.6 Hz, 2H), 2.85 (t, *J* = 5.6 Hz, 2H), 2.60 (m, 4H), 1.71 (m, 4H) ppm; MS (ES) 432.9 (M+H), 430.5 (M-H);

5-Amino-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1-(3-(trifluoromethoxy)phenyl)carbonyl-1H-1,2,4-triazole (compound #7), ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.11 (s, 1H), 8.21 (s, 1H), 8.09 (d, *J* = 7.2 Hz, 1H), 7.80 (s, 2H), 7.68 (m, 2H), 7.38 (d, *J* = 9.0 Hz, 2H), 6.75 (d, *J* = 8.7 Hz, 2H), 3.96 (t, *J* = 5.8 Hz, 2H), 2.75 (m, 2H), 2.49 (m, 4H), 1.67 (m, 4H) ppm; MS (ES) 477.2 (M+H), 475.0 (M-H);

5-Amino-1-(4-(dimethylamino)phenyl)carbonyl-3-[4-[3-(pyrrolidin-1-yl)propoxy]phenylamino]-1H-1,2,4-triazole (compound #8), ¹H-NMR (DMSO-*d*₆, 300 MHz) 8.96 (s, 1H), 8.25 (d, *J* = 9.0 Hz, 1H), 7.62 (s, 2H), 7.44 (d, *J* = 9.0 Hz, 2H), 6.82 (d, *J* = 9.3 Hz, 2H), 6.77 (d, *J* = 9.0 Hz, 2H), 3.93 (t, *J* = 6.3 Hz, 2H), 3.30 (t, *J* = 6.3 Hz, 2H), 3.04 (s, 6H), 2.49 (m, 4H), 1.85 (quint, 2H), 1.68 (m, 4H) ppm; MS (ES) 450.3 (M+H), 448.3 (M-H);

5-Amino-1-(3-methylphenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #9), ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.05 (s, 1H), 8.04 (s, 1H), 7.90 (d, *J* = 7.2 Hz, 1H), 7.75 (s, 2H), 7.43 (m, 4H), 6.79 (d, *J* = 8.4 Hz, 2H), 3.96 (t, *J* = 5.7 Hz, 2H), 2.72 (t, *J* = 5.7 Hz, 2H), 2.49 (m, 4H), 2.42 (s, 3H), 1.67 (m, 4H) ppm; MS (ES) 407.2 (M+H), 405.2 (M-H);

5-Amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-3-[4-[3-(pyrrolidin-1-

yl)propoxy]phenylamino]-1H-1,2,4-triazole (compound #10), ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.02 (s, 1H), 8.24 (d, *J* = 9.0 Hz, 1H), 7.71 (s, 2H), 7.42 (d, *J* = 9.3 Hz, 2H), 7.05 (d, *J* = 9.0 Hz, 2H), 6.82 (d, *J* = 9.0 Hz, 2H), 4.78 (m, 1H), 3.93 (t, *J* = 6.0 Hz, 2H), 3.31 (m, 2H), 2.49 (m, 4H), 1.87 (m, 2H), 1.70 (m, 4H) 1.32 (d, *J* = 5.7 Hz, 6H) ppm; MS (ES) 465.4 (M+H), 463.0 (M-H);

5-Amino-1-(3-(dimethylamino)phenyl)carbonyl-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #11), ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.04 (s, 1H), 7.74 (s, 2H), 7.57 (m, 1H), 7.42 (d, *J* = 9.0 Hz, 2H), 7.35 (m, 2H), 6.98 (dm, *J* = 9.0 Hz, 1H), 6.76 (d, *J* = 9.0 Hz, 2H), 3.96 (t, *J* = 6.0 Hz, 2H), 2.95 (s, 6H), 2.58 (t, *J* = 6.0 Hz, 2H), 2.42 (m, 4H), 1.48 (m, 4H), 1.38 (m, 2H) ppm; MS (ES) 450.3 (M+H), 448.2 (M-H);

5-Amino-1-(4-methylphenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #12), ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.03 (s, 1H), 8.09 (d, *J* = 8.1 Hz, 2H), 7.73 (s, 2H), 7.40 (d, *J* = 9.0 Hz, 2H), 7.35 (d, *J* = 8.4 Hz, 2H), 6.80 (d, *J* = 8.4 Hz, 2H), 3.97 (t, *J* = 5.7 Hz, 2H), 2.73 (t, *J* = 5.7 Hz, 2H), 2.49 (m, 4H), 2.41 (s, 3H), 1.66 (m, 4H) ppm; MS (ES) 407.3 (M+H), 405.1 (M-H);

5-Amino-1-(1,3-benzodioxol-5-yl)carbonyl-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #13), ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.03 (s, 1H), 7.89 (d, *J* = 7.5 Hz, 1H), 7.73 (d, *J* = 7.5 Hz, 1H), 7.72 (s, 2H), 7.39 (d, *J* = 8.7 Hz, 2H), 7.08 (d, *J* = 8.1 Hz, 1H), 6.80 (d, *J* = 8.4 Hz, 2H), 6.15 (s, 2H), 3.96 (t, *J* = 5.4 Hz, 2H), 2.59 (t, *J* = 5.4 Hz, 2H), 2.39 (m, 4H), 1.48 (m, 4H), 1.36 (m, 2H) ppm; MS (ES) 451.3 (M+H), 449.5 (M-H);

5-Amino-1-(3-methoxyphenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #14), ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.06 (s, 1H), 7.77 (s, 2H), 7.68 (d, *J* = 6.6 Hz, 1H), 7.46 (t, *J* = 7.8 Hz, 2H), 7.40 (d, *J* = 9.3 Hz, 2H), 7.19 (d, *J* = 7.5 Hz, 1H), 6.77 (d, *J* = 9.0 Hz, 2H), 3.96 (t, *J* = 5.4 Hz, 2H), 2.75 (t, *J* = 5.4 Hz, 2H), 2.49 (m, 4H), 1.67 (m, 4H) ppm; MS (ES) 423.2 (M+H), 421.2 (M-H);

5-Amino-3-[4-[3-(pyrrolidin-1-yl)propoxy]phenylamino]-1-(4-(*tert*-butoxy)phenyl)carbonyl-1H-1,2,4-triazole (compound #15), ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.02 (s, 1H), 8.17 (d, *J* = 8.7 Hz, 1H), 7.72 (s, 2H), 7.40 (d, *J* = 8.7 Hz, 2H), 7.12 (d, *J* = 8.7 Hz, 2H), 6.79 (d, *J* = 8.7 Hz, 2H), 3.91 (t, *J* = 6.3 Hz, 2H), 2.49 (m, 2H), 2.41 (m, 4H), 1.83 (quint, *J* = 6.6 Hz, 2H), 1.66 (m, 4H) 1.41 (s, 9H) ppm; MS (ES) 479.2 (M+H), 477.6 (M-H);

5-Amino-1-(1,3-benzodioxol-5-yl)carbonyl-3-[4-[2-(pyrrolidin-1-

yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #16), ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.03 (s, 1H), 7.89 (dd, *J* = 8.1, 1.8 Hz, 1H), 7.74 (d, *J* = 9.0 Hz, 1H), 7.72 (s, 2H), 7.40 (d, *J* = 8.7 Hz, 2H), 7.08 (d, *J* = 8.4 Hz, 1H), 6.80 (d, *J* = 8.7 Hz, 2H), 6.15 (s, 2H), 3.97 (t, *J* = 5.4 Hz, 2H), 2.75 (t, *J* = 5.4 Hz, 2H), 2.43 (m, 4H), 1.67 (m, 4H) ppm; MS

(ES) 437.2 (M+H), 435.1 (M-H);

5-Amino-1-(1,4-benzodioxan-6-yl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #17), ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.03 (s, 1H), 7.80 (m, 2H), 7.72 (s, 2H), 7.41 (d, *J* = 7.2 Hz, 2H), 7.00 (d, *J* = 8.1 Hz, 1H), 6.80 (d, *J* = 8.1 Hz, 2H), 4.33 (s, 2H), 4.31 (s, 2H), 3.97 (t, *J* = 5.4 Hz, 2H), 2.74 (t, *J* = 5.4 Hz, 2H), 2.43 (m, 4H), 1.66 (m, 4H) ppm; MS (ES) 451.3 (M+H), 449.2 (M-H);

5-Amino-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1-(3-(*tert*-butoxy)phenyl)carbonyl-1H-1,2,4-triazole (compound #18), ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.05 (s, 1H), 7.82 (d, *J* = 7.5 Hz, 1H), 7.77 (m, 3H), 7.47 (t, *J* = 7.8 Hz, 1H), 7.39 (d, *J* = 9.0 Hz, 2H), 7.24 (dm, *J* = 7.5 Hz, 1H), 6.76 (d, *J* = 8.7 Hz, 2H), 3.97 (t, *J* = 6.0 Hz, 2H), 2.75 (t, *J* = 6.0 Hz, 2H), 2.49 (m, 4H), 1.67 (m, 4H), 1.32 (s, 9H) ppm; MS (ES) 465.4 (M+H), 463.2 (M-H);

5-Amino-1-(3,5-(dimethoxy)phenyl)carbonyl-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #19), ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.07 (s, 1H), 7.77 (s, 2H), 7.42 (d, *J* = 8.7 Hz, 1H), 7.36 (s, 1H), 7.35 (s, 1H), 6.77 (d, *J* = 8.7 Hz, 2H), 6.75 (s, 1H), 3.97 (t, *J* = 5.4 Hz, 2H), 3.80 (s, 6H), 2.61 (m, 2H), 2.42 (m, 4H), 1.49 (m, 4H), 1.37 (m, 2H) ppm; MS (ES) 467.2 (M+H), 465.2 (M-H);

5-Amino-1-(3-(dimethylamino)phenyl)carbonyl-3-[4-[3-(pyrrolidin-1-yl)propoxy]phenylamino]-1H-1,2,4-triazole (compound #20), ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.03 (s, 1H), 7.74 (s, 2H), 7.57 (s, 1H), 7.42 (d, *J* = 9.0 Hz, 2H), 7.33 (m, 2H), 6.97 (dm, *J* = 7.8 Hz, 1H), 6.75 (d, *J* = 9.0 Hz, 2H), 3.91 (t, *J* = 6.3 Hz, 2H), 2.95 (s, 6H), 2.54 (m, 2H), 2.49 (m, 4H), 1.84 (quint, *J* = 6.3 Hz, 2H), 1.68 (m, 4H) ppm; MS (ES) 450.2 (M+H), 448.6 (M-H);

5-Amino-1-(3,4-(dimethoxy)phenyl)carbonyl-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #21), ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.06 (s, 1H), 7.99 (s, 1H), 7.89 (d, *J* = 7.6 Hz, 1H), 7.73 (s, 2H), 7.44 (d, *J* = 8.7 Hz, 2H), 7.12 (d, *J* = 7.6 Hz, 1H), 6.80 (d, *J* = 8.7 Hz, 2H), 3.97 (t, *J* = 5.4 Hz, 2H), 3.87 (s, 3H), 3.82 (s, 3H), 2.59 (t, *J* = 5.4 Hz, 2H), 2.40 (m, 4H), 1.48 (m, 4H), 1.36 (m, 2H) ppm; MS (ES) 467.3 (M+H), 465.1 (M-H);

5-Amino-1-(3,5-(dimethoxy)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #22), ¹H-NMR (DMSO-*d*₆, 300

MHz) 9.07 (s, 1H), 7.77 (s, 1H), 7.42 (d, $J = 8.1$ Hz, 2H), 7.35 (s, 2H), 6.76 (d, $J = 7.8$ Hz, 2H), 6.75 (s, 1H), 3.96 (t, $J = 5.7$ Hz, 2H), 3.80 (s, 6H), 2.72 (t, $J = 5.7$ Hz, 2H), 2.49 (m, 4H), 1.66 (m, 4H) ppm; MS (ES) 453.2 (M+H), 451.4 (M-H);

5-Amino-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1-(4-

5 (trifluoromethoxy)phenyl)carbonyl-1H-1,2,4-triazole (compound #23), $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 9.06 (s, 1H), 8.27 (d, $J = 8.4$ Hz, 2H), 7.78 (s, 2H), 7.54 (d, $J = 7.5$ Hz, 2H), 7.37 (d, $J = 8.4$ Hz, 2H), 6.80 (d, $J = 8.7$ Hz, 2H), 3.97 (m, 2H), 2.76 (m, 3H), 2.49 (m, 4H), 1.68 (m, 4H) ppm; MS (ES) 477.4 (M+H), 475.4 (M-H);

5-Amino-3-[4-[3-(pyrrolidin-1-yl)propoxy]phenylamino]-1-(3-(*tert*-

10 butoxy)phenyl)carbonyl-1H-1,2,4-triazole (compound #24), $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 9.04 (s, 1H), 7.82 (d, $J = 7.8$ Hz, 1H), 7.78 (s, 1H), 7.76 (s, 2H), 7.46 (t, $J = 7.8$ Hz, 1H), 7.38 (d, $J = 8.7$ Hz, 2H), 7.23 (d, $J = 7.2$ Hz, 1H), 6.75 (d, $J = 9.0$ Hz, 2H), 3.90 (t, $J = 6.3$ Hz, 2H), 2.46 (m, 2H), 2.40 (m, 4H), 1.82 (quint, $J = 6.3$ Hz, 2H), 1.66 (m, 4H), 1.32 (s, 9H) ppm; MS (ES) 479.4 (M+H), 477.4 (M-H);

15 5-Amino-1-(benzimidazol-6-yl)carbonyl-3-[4-[2-(pyrrolidin-1-

yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #25), $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 9.07 (s, 1H), 8.63 (s, 1H), 8.40 (s, 1H), 8.34 (s, 1H), 8.02 (d, $J = 8.7$ Hz, 1H), 7.76 (s, 2H), 7.70 (d, $J = 8.7$ Hz, 1H), 7.45 (d, $J = 9.0$ Hz, 2H), 6.81 (d, $J = 9.0$ Hz, 2H), 4.04 (t, $J = 5.7$ Hz, 2H), 2.99 (t, $J = 5.7$ Hz, 2H), 2.77 (m, 4H), 1.75 (m, 4H) ppm; MS (ES)

20 433.5 (M+H), 431.5 (M-H);

5-Amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-3-[4-(piperidin-1-yl)phenylamino]-1H-

1,2,4-triazole (compound #26), $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 8.93 (s, 1H), 8.24 (d, $J = 8.7$ Hz, 2H), 7.69 (s, 2H), 7.36 (d, $J = 8.7$ Hz, 1H), 7.05 (d, $J = 8.7$ Hz, 1H), 6.82 (d, $J = 8.7$ Hz, 2H), 4.78 (m, 1H), 2.97 (t, $J = 5.7$ Hz, 4H), 1.60 (m, 4H), 1.48 (m, 2H), 1.31 (d, $J = 5.7$ Hz, 6H) ppm; MS (ES) 421.2 (M+H), 419.3 (M-H);

5-Amino-1-(4-(methoxy)cyclohexyl)carbonyl-3-[4-[2-(piperidin-1-

yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #27), $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 8.97 (s, 1H), 7.52 (s, 2H), 7.44 (d, $J = 8.7$ Hz, 2H), 6.82 (d, $J = 8.7$ Hz, 2H), 3.98 (t, $J = 5.1$ Hz, 2H), 3.39 (s, 3H), 3.22 (m, 1H), 2.73 (t, $J = 5.1$ Hz, 2H), 2.49 (m, 4H), 2.07-

30 1.45 (m, 13H) ppm; MS (ES) 429.3 (M+H), 427.2 (M-H); and

5-Amino-1-(6-(methyl)pyridin-3-yl)carbonyl-3-[4-[2-(pyrrolidin-1-

yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #28), $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 8.88 (s, 1H), 8.32 (s, 1H), 8.16 (s, 2H), 8.08 (d, $J = 6.6$ Hz, 1H), 7.37 (d, $J = 8.7$ Hz, 2H), 7.32 (d, $J = 7.5$ Hz, 1H), 6.75 (d, $J = 9.0$ Hz, 2H), 3.97 (t, $J = 5.7$ Hz, 2H), 2.81 (t, $J = 5.7$ Hz, 2H), 2.58 (s, 3H), 2.49 (m, 4H), 1.69 (m, 4H) ppm; MS (ES) 408.5 (M+H), 406.5

35

(M-H).

In the following reaction schemes and examples, unless otherwise noted, reagents and solvents were used as received from commercial suppliers. Proton and carbon nuclear magnetic resonance spectra were obtained on a Bruker AC 300 or a Bruker AV-300 spectrometer at 300 MHz for proton and 75 MHz for carbon. Spectra are given in ppm (δ) and coupling constants, J , are reported in Hertz. Tetramethylsilane was used as an internal standard for proton spectra and the solvent peak was used as the reference peak for carbon spectra. Infrared spectra were obtained on a Nicolet Nexus 470 (ATR) spectrometer. Mass spectra were obtained on a Perkin Elmer Sciex 100 atmospheric pressure ionization (APCI) mass spectrometer, or a Finnigan LCQ Duo LCMS ion trap electrospray ionization (ESI) mass spectrometer. Thin-layer chromatography (TLC) was performed using Analtech silica gel plates and visualized by ultraviolet (UV) light, iodine, or 20 wt % phosphomolybdic acid in ethanol. HPLC analyses were obtained using a YMC J'Sphere ODS-M80 column (150 x 4.6 mm) with UV detection at 254 nm using a standard solvent gradient program (Method A). Elemental analyses were performed by Quantitative Technologies, Inc. (Whitehouse, NJ).

Method 1:

Time (min)	Flow (mL/min)	%A	%B
0	1	90	10
15	1	0	100
25	1	0	100
30	1	90	10

A = Water with 0.03 v/v Trifluoroacetic Acid

B = Acetonitrile with 0.03 v/v Trifluoroacetic acid

Method 2:

Time (min)	Flow (mL/min)	%A	%B
0	1	90	10
15	1	0	100
25	1	0	100
30	1	90	10

A = Water + 5% Acetonitrile (v/v) with 0.03 v/v Trifluoroacetic Acid

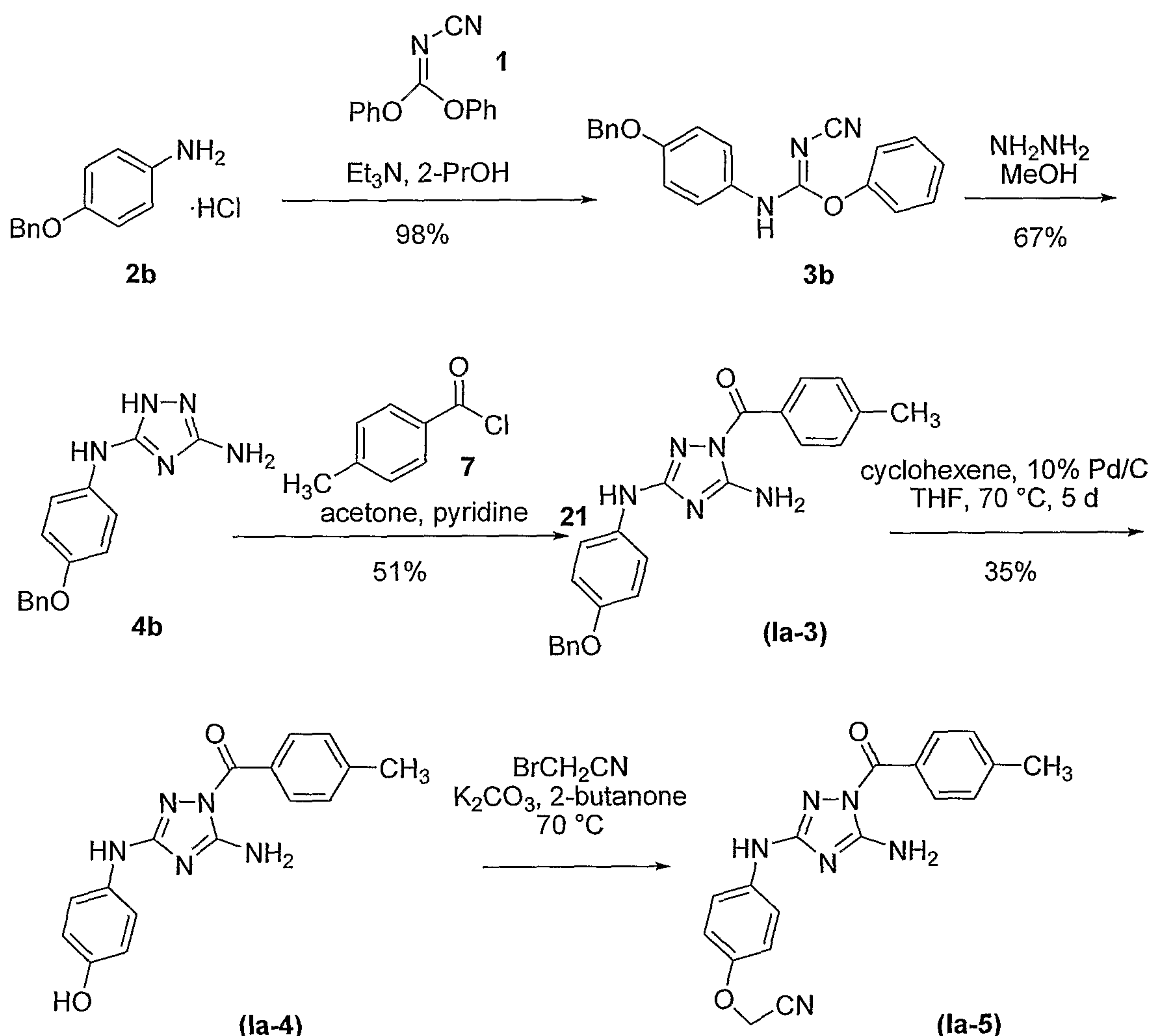
B = Acetonitrile + 5% Water (v/v) with 0.03 v/v Trifluoroacetic Acid

Compounds (1a-3), (1a-4) and (1a-5), as set forth below in Reaction Scheme 1B,

are compounds of formula (Ia), as set forth above in the Summary of the Invention, and are prepared as illustrated below in Reaction Scheme 1B. For purposes of convenience, the minor products, *i.e.*, the corresponding compounds of formula (Ib), are not illustrated in Reaction Scheme 1B, but it is understood that these compounds are prepared as well by the method disclosed therein and can be isolated and separated from compounds (Ia-3), (Ia-4) and (Ia-5) by standard isolation and separation techniques.

REACTION SCHEME 1B

Preparation of 5-Amino-3-[4-(benzyloxy)phenylamino]-1-(4-methylphenyl)carbonyl-1H-1,2,4-triazole (Ia-4) and 5-Amino-3-[3-(benzyloxymethoxy)phenylamino]-1-(4-methylphenyl)carbonyl-1H-1,2,4-triazole (Ia-5)



In general, compound (Ia-3) was prepared by methods similar to those described in Reaction Scheme 1, Reaction Scheme 1A, and as described below. Successful debenzoylation of (Ia-3) was accomplished by heating for 5 days in cyclohexene in the

presence of Pd/C. The alkylation of (**la-4**) with bromoacetonitrile gave (**la-5**).

Specifically, a mixture of 4-benzyloxyaniline hydrochloride **2b** (10.26 g, 43.5 mmol) and triethylamine (4.40 g, 43.5 mmol) in 2-propanol (100 mL) was stirred at ambient temperature. After 10 min, diphenylcyanocarbimide **1** (10.37 g, 43.5 mmol) was added and stirring continued at ambient temperature. After 3.5 h the solids that formed were collected by filtration, washing with 2-propanol, to afford **3b** (14.64 g, 98%) as an off-white solid: ¹H NMR (300 MHz, DMSO-*d*₆) δ 10.68 (br s, 1H), 7.47-7.02 (m, 14H), 5.11 (s, 2H).

A mixture of **3b** (14.60 g, 42.5 mmol) and hydrazine hydrate (2.55 g, 51.0 mmol) in MeOH (150 mL) was stirred at ambient temperature. After 2.25 h, additional hydrazine hydrate (1.28g, 25.6 mmol) was added and stirring continued at ambient temperature for 1.5 h. The present solids were collected by filtration, washing with 2-propanol, to afford **4b** (8.0 g, 67%) as a yellow solid: ¹H NMR (300 MHz, DMSO-*d*₆) δ 11.00 (br s, 1H), 8.35 (br s, 1H), 7.43-7.24 (m, 7H), 6.83 (d, *J* = 8.9 Hz, 2H), 5.78 (br s, 2H), 5.01 (s, 2H).

To a stirred mixture of **4b** (1.0 g, 3.57 mmol) and pyridine (0.28 g, 3.57 mmol) in acetone (20 mL) at ice bath temperature was added *p*-toluoyl chloride **7** (0.55 g, 3.57 mmol). After stirring for 1 h at ice bath temperature and an additional 3 h at ambient temperature the reaction mixture was poured onto water (100 mL) and stirred vigorously. The solids that formed were collected by filtration and triturated with 2-propanol (100 mL) to give 1.1 g of a yellow solid. Purification by flash chromatography (98:2 methylene chloride/methanol) afforded 5-amino-3-[4-(benzyloxy)phenylamino]-1-(4-methylphenyl)carbonyl-1H-1,2,4-triazole (**la-3**) (0.72 g, 51%) as a yellow solid: ¹H NMR (300 MHz, DMSO-*d*₆) δ 9.10 (br s, 1H), 8.13 (d, *J* = 8.2 Hz, 2H), 7.78 (br s, 2H), 7.47-7.21 (m, 9H), 6.92 (d, *J* = 9.0 Hz, 2H), 5.03 (s, 2H), 2.42 (s, 3H).

A mixture of 5-amino-3-[4-(benzyloxy)phenylamino]-1-(4-methylphenyl)carbonyl-1H-1,2,4-triazole (**la-3**) (3.95 g, 9.89 mmol) and 10% Pd/C (0.80 g) in cyclohexene (64 mL) and THF (128 mL) was stirred and heated at 70 °C. After 2 d, additional 10% Pd/C (0.80 g) was added and heating and stirring at 70 °C was continued for an additional 3 d. After cooling to ambient temperature, the mixture was filtered through diatomaceous earth and concentrated to give a yellow-brown residue. Purification by flash chromatography (95:5 methylene chloride/methanol) followed by trituration with methylene chloride afforded 5-amino-3-[4-(hydroxy)phenylamino]-1-(4-methylphenyl)carbonyl-1H-1,2,4-triazole (**la-4**) (1.08g, 35%) as a pale yellow solid: *R*_f 0.36 (95:5 methylene chloride/methanol); mp 221-223 °C; ¹H NMR (300 MHz, DMSO-*d*₆)

δ 8.92 (s, 1H), 8.88 (s, 1H), 8.13 (d, $J = 8.2$ Hz, 2H), 7.74 (br s, 2H), 7.38-7.32 (m, 4H), 6.64 (d, $J = 8.8$ Hz, 2H), 2.42 (s, 3H); ^{13}C NMR (75 MHz, DMSO- d_6) δ 166.1, 158.4, 157.3, 151.0, 142.9, 132.9, 130.6, 129.8, 128.4, 118.1, 115.1, 21.1; IR (ATR) 1697 cm^{-1} ; ESI MS m/z 310 [$\text{C}_{16}\text{H}_{15}\text{N}_5\text{O}_2 + \text{H}$] $^+$; HPLC (Method A) >99% (AUC), $t_R = 11.22$ min.

5 Anal. Calcd for $\text{C}_{16}\text{H}_{15}\text{N}_5\text{O}_2 \cdot 0.5\text{H}_2\text{O}$: C, 60.47; H, 4.92; N, 22.04. Found: C, 60.27; H, 4.70; N, 21.51.

A mixture of (**la-4**) (0.50 g, 1.62 mmol), potassium carbonate (0.25 g, 1.78 mmol) and bromoacetonitrile (0.21 g, 1.78 mmol) in 2-butanone (5 mL) was stirred at 75 °C.

After 18 h the reaction was cooled to ambient temperature, diluted with ethyl acetate (100 mL), washed with water, brine, dried over magnesium sulfate and concentrated to afford 0.55 g of a tan solid. Purification by flash chromatography (1:1 ethyl

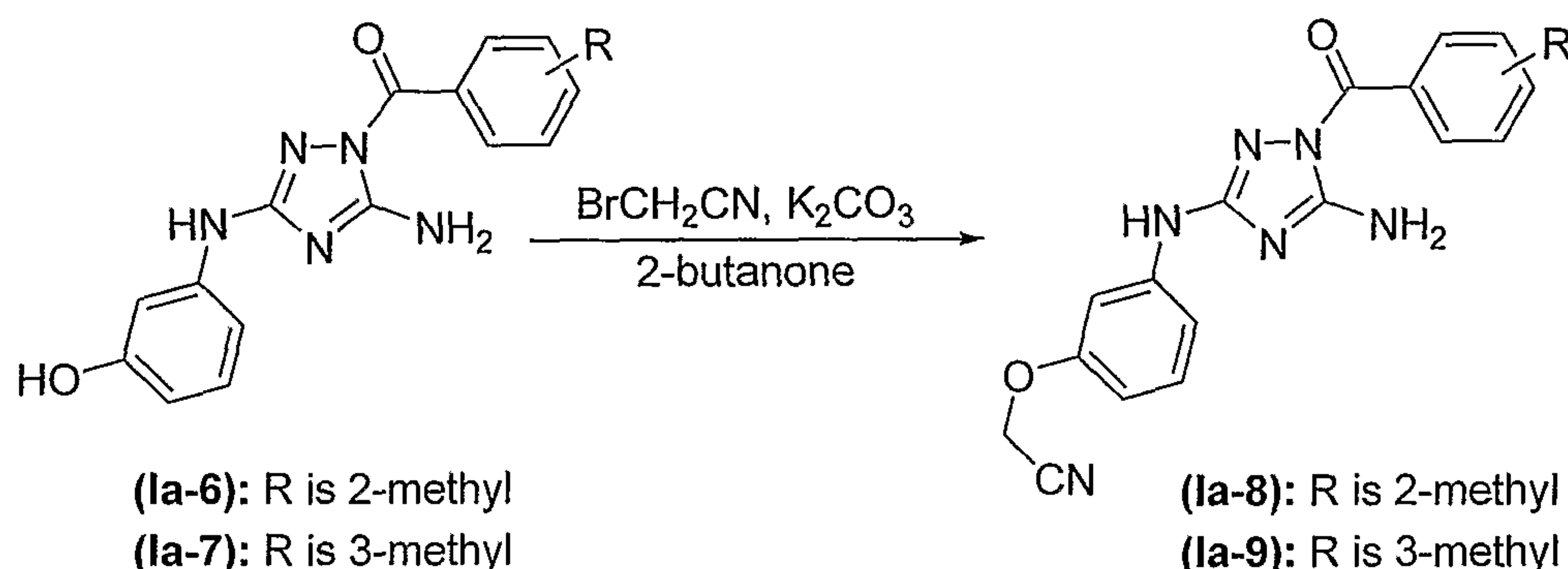
acetate/hexanes), followed by recrystallization from acetonitrile afforded 5-amino-3-[3-(cyanomethoxy)phenylamino]-1-(4-(methyl)phenyl)carbonyl-1H-1,2,4-triazole (**la-5**) (0.08 g, 14%) as a yellow solid: R_f 0.46 (95:5 methylene chloride/methanol); mp 236-241 °C;

15 ^1H NMR (300 MHz, DMSO- d_6) δ 9.23 (s, 1H), 8.12 (d, $J = 8.0$ Hz, 2H), 7.79 (br s, 2H), 7.50 (d, $J = 8.9$ Hz, 2H), 7.39 (d, $J = 8.0$ Hz, 2H), 6.98 (d, $J = 8.9$ Hz, 2H), 5.08 (s, 2H), 2.43 (s, 3H); ^{13}C NMR (75 MHz, DMSO- d_6) δ 166.6, 158.5, 157.7, 150.4, 143.3, 136.5, 130.9, 130.1, 128.8, 118.0, 117.2, 115.9, 54.4, 21.5; IR (ATR) 1687 cm^{-1} ; APCI MS m/z 349 [$\text{C}_{18}\text{H}_{16}\text{N}_6\text{O}_2 + \text{H}$] $^+$; HPLC (Method A) 96.4% (AUC), $t_R = 13.31$ min. Anal. Calcd for $\text{C}_{18}\text{H}_{16}\text{N}_6\text{O}_2 \cdot 0.25\text{H}_2\text{O}$: C, 61.31; H, 4.65; N, 23.82. Found: C, 61.51; H, 4.41; N, 23.69.

Compounds (**la-8**) and (**la-9**), as set forth below in Reaction Scheme 1C, are compounds of formula (Ia), as set forth above in the Summary of the Invention, and are prepared as illustrated below in Reaction Scheme 1C from compounds (**la-6**) and (**la-7**), which are both compounds of the invention as well. The corresponding compounds of formula (Ib) of these compounds may be prepared in a similar manner.

REACTION SCHEME 1C

Preparation of 5-Amino-3-[3-(cyanomethoxy)phenylamino]-1-(2-(methyl)phenyl)carbonyl-1H-1,2,4-triazole (**la-8**) and 5-Amino-3-[3-(cyanomethoxy)phenylamino]-1-(3-(methyl)phenyl)carbonyl-1H-1,2,4-triazole (**la-9**)



In general, alkylation of compounds (**la-6**) and (**la-7**) with 2-bromoacetonitrile in the presence of K_2CO_3 afforded compounds (**la-8**) and (**la-9**). Compounds (**la-6**) and (**la-7**) can be prepared according to methods similar to those described above using the appropriately substituted starting materials or by methods known to one skilled in the art.

In particular, to a solution of 5-amino-3-[3-(hydroxy)phenylamino]-1-(2-(methyl)phenyl)carbonyl-1H-1,2,4-triazole (**la-6**) (0.23 g, 0.75 mmol) in 2-butanone (3 mL) was added K_2CO_3 (0.11 g, 0.83 mmol) and $BrCH_2CN$ (0.10 g, 0.83 mmol). After stirring the mixture at 75 °C for 20 h, the 2-butanone was removed under reduced pressure. The residue was dissolved in EtOAc (50 mL), washed with water (50 mL), brine (30 mL), dried (Na_2SO_4) and concentrated to afford the crude product. Purification by flash chromatography (1:1 hexanes/EtOAc) gave 5-amino-3-[3-(cyanomethoxy)phenylamino]-1-(2-(methyl)phenyl)carbonyl-1H-1,2,4-triazole (**la-8**) (0.09 g, 35%) as a white solid: R_f 0.29 (1:1 hexanes/ethyl acetate); mp (DSC) 204.5-207.9 °C; ^1H NMR (300 MHz, $DMSO-d_6$) δ 9.43 (s, 1H), 7.84 (s, 2H), 7.56 (d, J = 7.6 Hz, 1H), 7.46-7.41 (m, 1H), 7.35-7.22 (m, 3H), 7.11 (t, J = 8.1 Hz, 1H), 6.96-6.93 (m, 1H), 6.48 (dd, J = 8.0, 2.2 Hz, 1H), 4.80 (s, 2H), 2.31 (s, 3H); ^{13}C NMR (75 MHz, $DMSO-d_6$) δ 168.8, 158.5, 157.0, 156.9, 142.7, 135.5, 134.7, 130.5, 130.4, 129.8, 128.1, 125.5, 116.7, 111.2, 106.3, 103.3, 53.3, 19.5; IR (ATR) 3448, 3368, 2325, 1689 cm^{-1} ; APCI MS m/z 349 $[C_{18}H_{16}N_6O_2 + H]^+$; HPLC (Method A) 91.3% (AUC), t_R = 12.46 min.

Alternatively, to a solution of 5-amino-3-[3-(hydroxy)phenylamino]-1-(3-(methyl)phenyl)carbonyl-1H-1,2,4-triazole (**la-7**) (0.84 g, 2.7 mmol) in 2-butanone (9 mL) was added K_2CO_3 (0.41 g, 3.0 mmol) and $BrCH_2CN$ (0.36 g, 3.0 mmol). After stirring the

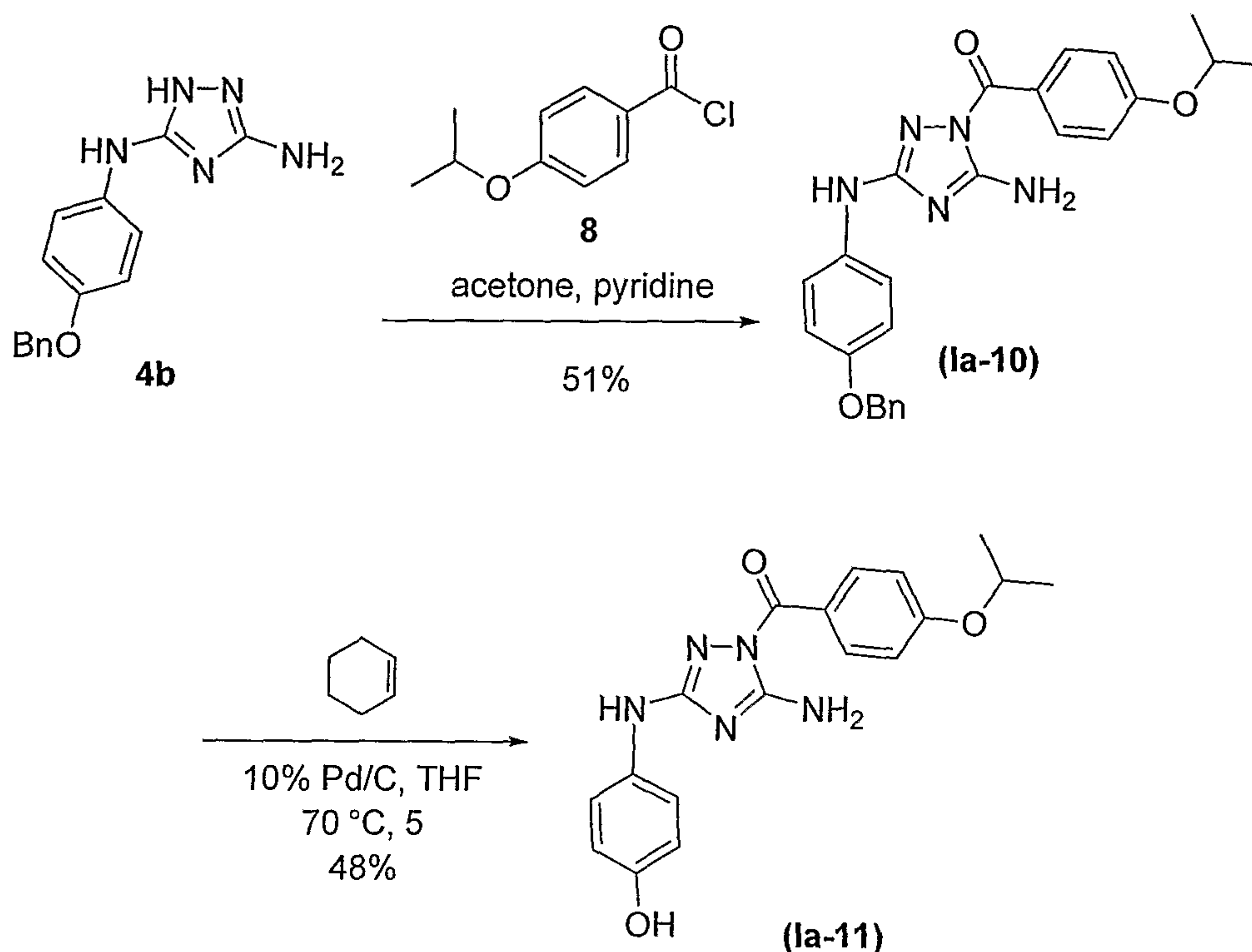
mixture at 75 °C for 20 h, the 2-butanone was removed under reduced pressure. The residue was dissolved in EtOAc (50 mL), washed with water (50 mL), brine (30 mL), dried (Na₂SO₄) and concentrated to afford the crude product. Recrystallization from CH₃CN afforded 5-amino-3-[3-(cyanomethoxy)phenylamino]-1-(3-

- 5 (methyl)phenyl)carbonyl-1H-1,2,4-triazole (**la-9**) (0.12 g, 13%) as a white solid: *R_f* 0.22 (1:1 hexanes/ethyl acetate); mp (DSC) 220.0-224.4 °C; ¹H NMR (300 MHz, DMSO-*d*₆) δ 9.45 (s, 1H), 8.05 (s, 1H), 7.91 (d, *J* = 7.1 Hz, 1H), 7.83 (s, 2H), 7.50-7.39 (m, 3H), 7.20 (t, *J* = 8.1 Hz, 1H), 7.12-7.09 (m, 1H), 6.56 (dd, *J* = 7.9, 2.2 Hz, 1H), 5.04 (s, 2H), 2.43 (s, 3H); ¹³C NMR (75 MHz, DMSO-*d*₆) δ 166.6, 157.9, 157.2, 156.9, 142.3, 137.2, 133.0, 132.6, 130.8, 129.5, 127.8, 127.4, 116.5, 111.1, 105.2, 104.0, 53.3, 20.8; IR (ATR) 3449, 3367, 2325, 1684 cm⁻¹; APCI MS *m/z* 349 [C₁₈H₁₆N₆O₂ + H]⁺; HPLC (Method A) 96.8% (AUC), *t_R* = 12.81 min.
- 10

- Compounds (**la-10**) and (**la-11**), as set forth below in Reaction Scheme 1D, are compounds of formula (Ia), as set forth above in the Summary of the Invention, and are prepared as illustrated below in Reaction Scheme 1D. For purposes of convenience, the minor products, *i.e.*, the corresponding compounds of formula (Ib), are not illustrated in Reaction Scheme 1D, but it is understood that these compounds are prepared as well by the method disclosed therein and can be isolated and separated from compounds (**la-10**) and (**la-11**) by standard isolation and separation techniques.
- 15

REACTION SCHEME 1D

Preparation of 5-Amino-3-[3-(benzyloxy)phenylamino]-1-(4-(*iso*-propoxy)phenyl)carbonyl-1H-1,2,4-triazole (**1a-10**) and 5-Amino-3-[4-(hydroxy)phenylamino]-1-(4-(*iso*-propoxy)phenyl)carbonyl-1H-1,2,4-triazole (**1a-11**)



In general, compound (**1a-11**) is prepared by the acylation of compound **4b** with the compound **8**, followed by removal of the benzyl group. Compound **4b** can be prepared by methods similar to those described herein or by methods known to one skilled in the art.

Specifically, to a stirred mixture of 4-isopropoxy benzoic acid (10.0 g, 55.5 mmol) and DMF (1 drop) in methylene chloride (80 mL) was added dropwise over a period of 15 min, a solution of oxalyl chloride (7.40g, 58.2 mmol) in methylene chloride (20 mL). After stirring for 2.45 h at ambient temperature the reaction mixture was concentrated, taken up into a small amount of methylene chloride, filtered to remove insolubles and again concentrated to afford **8** (10.38 g, 94%) as a yellow liquid: ^1H NMR (300 MHz, CDCl_3) δ 8.05 (d, 2H), 6.94 (d, 2H), 4.68 (m, 1H), 1.44 (d, 6H).

To a stirred mixture of **8** (0.50 g, 1.78 mmol) and pyridine (0.14 g, 1.78 mmol) in acetone (15 mL) at ice bath temperature was added **31** (0.35 g, 1.78 mmol). After stirring for 1 h at ice bath temperature and an additional 21.5 h at ambient temperature the reaction mixture was poured onto water (150 mL) and stirred vigorously. The

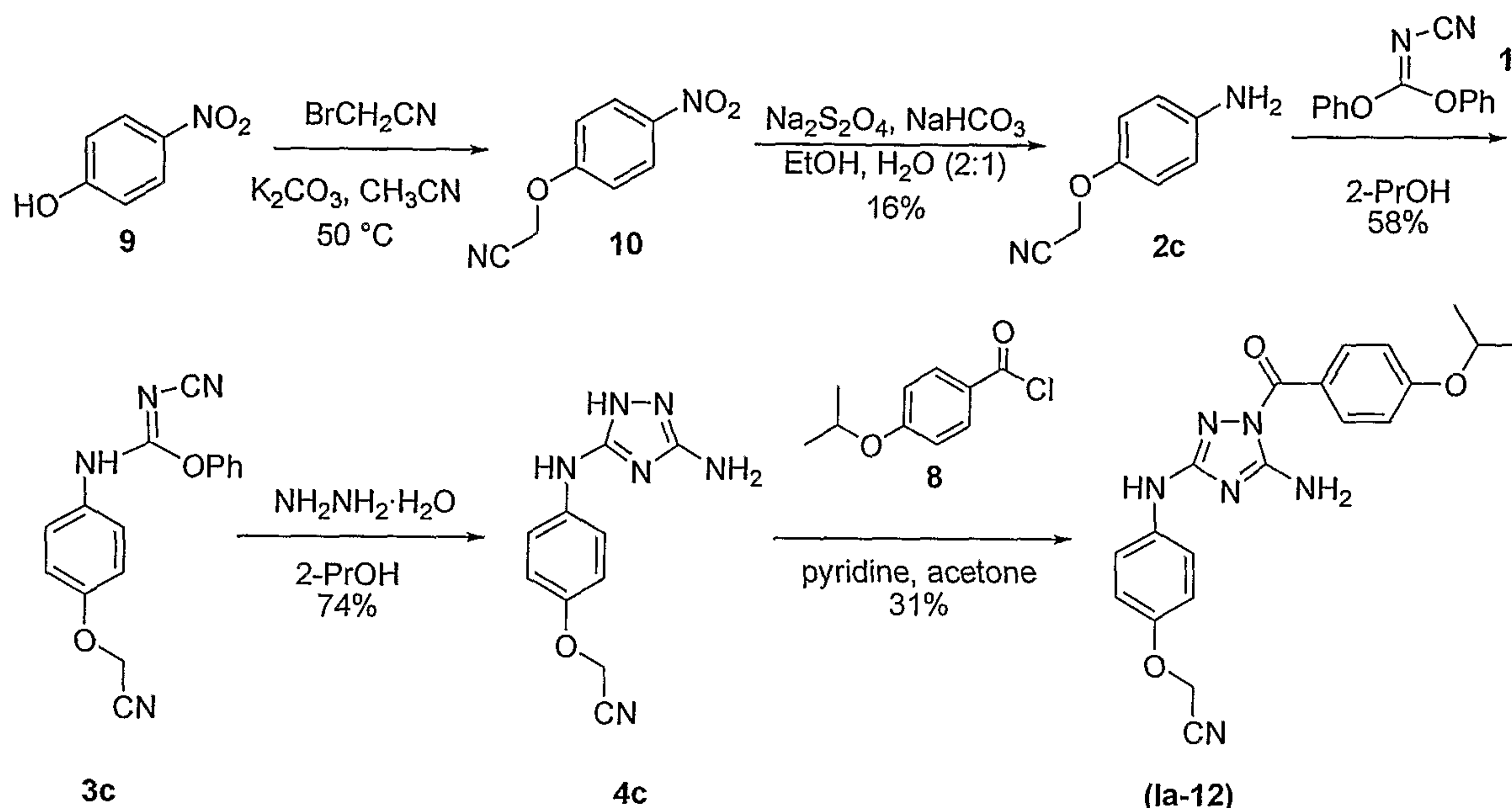
aqueous mixture was extracted with ethyl acetate and the organic layer was separated, washed with brine, dried over magnesium sulfate and concentrated to give 0.74 g of a yellow foam. Purification by flash chromatography (97:3 methylene chloride/methanol) afforded 5-amino-3-[4-(benzyloxy)phenylamino]-1-(4-(*iso*-propoxy)phenyl)carbonyl-1H-1,2,4-triazole (**la-10**) (0.52 g, 51%) as a yellow solid: R_f 0.51 (95:5 methylene chloride/methanol); mp 79-81 °C; ^1H NMR (300 MHz, DMSO- d_6) δ 9.08 (s, 1H), 8.26 (d, J = 8.9 Hz, 2H), 7.75 (br s, 2H), 7.60-7.20 (m, 7H), 7.08 (d, J = 9.0 Hz, 2H), 6.93 (d, J = 9.0 Hz, 2H), 5.26 (s, 2H), 4.80 (m, 1H), 1.33 (d, J = 6.0 Hz, 6H); ^{13}C NMR (75 MHz, DMSO- d_6) δ 165.8, 161.4, 158.6, 157.8, 152.5, 137.7, 135.1, 133.5, 128.7, 128.0, 127.9, 124.4, 118.1, 115.4, 114.8, 69.9, 69.8, 22.0; IR (ATR) 1669, 1581, 1544, 1506 cm^{-1} ; ESI MS m/z 444 [$\text{C}_{25}\text{H}_{25}\text{N}_5\text{O}_3 + \text{H}$] $^+$; HPLC (Method A) >99% (AUC), t_R = 16.27 min. Anal. Calcd for $\text{C}_{25}\text{H}_{25}\text{N}_5\text{O}_3$: C, 67.70; H, 5.68; N, 15.79. Found: C, 67.73; H, 5.63; N, 15.79.

A mixture of (**la-10**) (0.36 g, 0.812 mmol) and 10% Pd/C (0.072 g) in cyclohexene (6 mL) and THF (12 mL) was stirred and heated at 70 °C. After 2 d, additional 10% Pd/C (0.036 g) was added and heating and stirring at 70 °C was continued for an additional 3 d. After cooling to ambient temperature, the mixture was filtered through diatomaceous earth and concentrated to give a yellow-brown residue. Purification by flash chromatography (95:5 methylene chloride/methanol) afforded 5-amino-3-[4-(hydroxy)phenylamino]-1-(4-(*iso*-propoxy)phenyl)carbonyl-1H-1,2,4-triazole (**la-11**) (0.14 g, 48%) as a tan solid: R_f 0.37 (95:5 methylene chloride/methanol); mp 229-234 °C; ^1H NMR (300 MHz, DMSO- d_6) δ 8.91 (s, 1H), 8.88 (s, 1H), 8.26 (d, J = 8.9 Hz, 2H), 7.72 (br s, 2H), 7.34 (d, J = 8.8 Hz, 2H), 7.07 (d, J = 8.9 Hz, 2H), 6.65 (d, J = 8.8 Hz, 2H), 4.79 (m, 1H), 1.32 (d, J = 6.0 Hz, 6H); ^{13}C NMR (75 MHz, DMSO- d_6) δ 165.8, 161.4, 158.7, 157.8, 151.4, 133.5, 133.4, 124.4, 118.5, 115.5, 114.8, 70.0, 55.3, 22.0; IR (ATR) 1652, 1607, 1573, 1505 cm^{-1} ; ESI MS m/z 354 [$\text{C}_{18}\text{H}_{19}\text{N}_5\text{O}_3 + \text{H}$] $^+$; HPLC (Method A) >99% (AUC), t_R = 11.74 min. Anal. Calcd for $\text{C}_{18}\text{H}_{19}\text{N}_5\text{O}_3 \cdot 0.5\text{H}_2\text{O}$: C, 59.74; H, 5.43; N, 19.32. Found: C, 59.94; H, 5.08; N, 19.00.

Compound (**la-12**), as set forth below in Reaction Scheme 1E, is a compound of formula (Ia), as set forth above in the Summary of the Invention, and is prepared as illustrated below in Reaction Scheme 1E. For purposes of convenience, the minor product, *i.e.*, the corresponding compound of formula (Ib), is not illustrated in Reaction Scheme 1E, but it is understood that this compound is prepared as well by the method disclosed therein and can be isolated and separated from compound (**la-12**) by standard isolation and separation techniques.

REACTION SCHEME 1E

Preparation of 5-Amino-3-[4-(cyanomethoxy)phenylamino]-1-(4-(*iso*-propoxy)phenyl)carbonyl-1H-1,2,4-triazole



5 In general, compound (**Ia-12**) was prepared as shown above in Reaction Scheme 1E from commercially available 4-nitrophenol **9**.

Specifically, a mixture of 4-nitrophenol **9** (6.00 g, 43.1 mmol), bromoacetonitrile (5.05 g, 47.4 mmol) and potassium carbonate (6.56 g, 47.4 mmol) in acetonitrile (120 mL) was heated to 50°C for 5 h. The reaction was concentrated to remove most of the acetonitrile, extracted with ethyl acetate (25 mL), washed with water (25 mL), 1 N aqueous sodium hydroxide (25 mL), brine, dried (MgSO_4) and concentrated to afford **10** (7.49 g, 97%) as a tan-yellow solid: ^1H NMR (300 MHz, $\text{DMSO}-d_6$) δ 8.29 (dd, $J = 2.1$, 7.2 Hz, 2H), 7.29 (dd, $J = 7.2$, 2.1 Hz, 2H), 5.36 (s, 2H).

A mixture of **10** (5.42 g, 30.4 mmol), sodium dithionite (15.89 g, 91.2 mmol) and sodium bicarbonate (15.30 g, 182.0 mmol) in 1:2 ethanol/water (75 mL) was stirred at ambient temperature for 20 h. Water (25 mL) was added and the pH of the resultant solution was adjusted to pH 10 with 1 N aqueous sodium hydroxide. The aqueous solution was extracted with methylene chloride (3 x 200 mL), the combined organic layers were separated, dried (MgSO_4) and concentrated to afford crude product **2c** (0.73 g, 16%) as a yellow oil: ^1H NMR (300 MHz, $\text{DMSO}-d_6$) δ 6.78 (dd, $J = 7.5$, 3.0 Hz, 2H), 6.55 (dd, $J = 7.5$, 3.0 Hz, 2H), 4.96 (s, 2H), 4.83 (br s, 2H).

A mixture of **2c** (0.86 g, 5.79 mmol) and diphenylcyanocarbimide **1** (1.38 g,

5.79 mmol) in 2-propanol (20 mL) was stirred at ambient temperature for 17 h. The solids that formed were collected by filtration and washed with 2-propanol, to afford **3c** (0.99 g, 58%) as an off-white solid: ^1H NMR (300 MHz, CDCl_3) δ 8.90 (br s, 1H), 7.44-7.33 (m, 5H), 7.52 (d, $J = 7.9$ Hz, 2H), 7.12 (dd, $J = 3.0, 7.9$ Hz, 2H), 4.77 (s, 2H); ESI MS m/z 293 [$\text{C}_{16}\text{H}_{12}\text{N}_4\text{O}_2 + \text{H}$] $^+$.

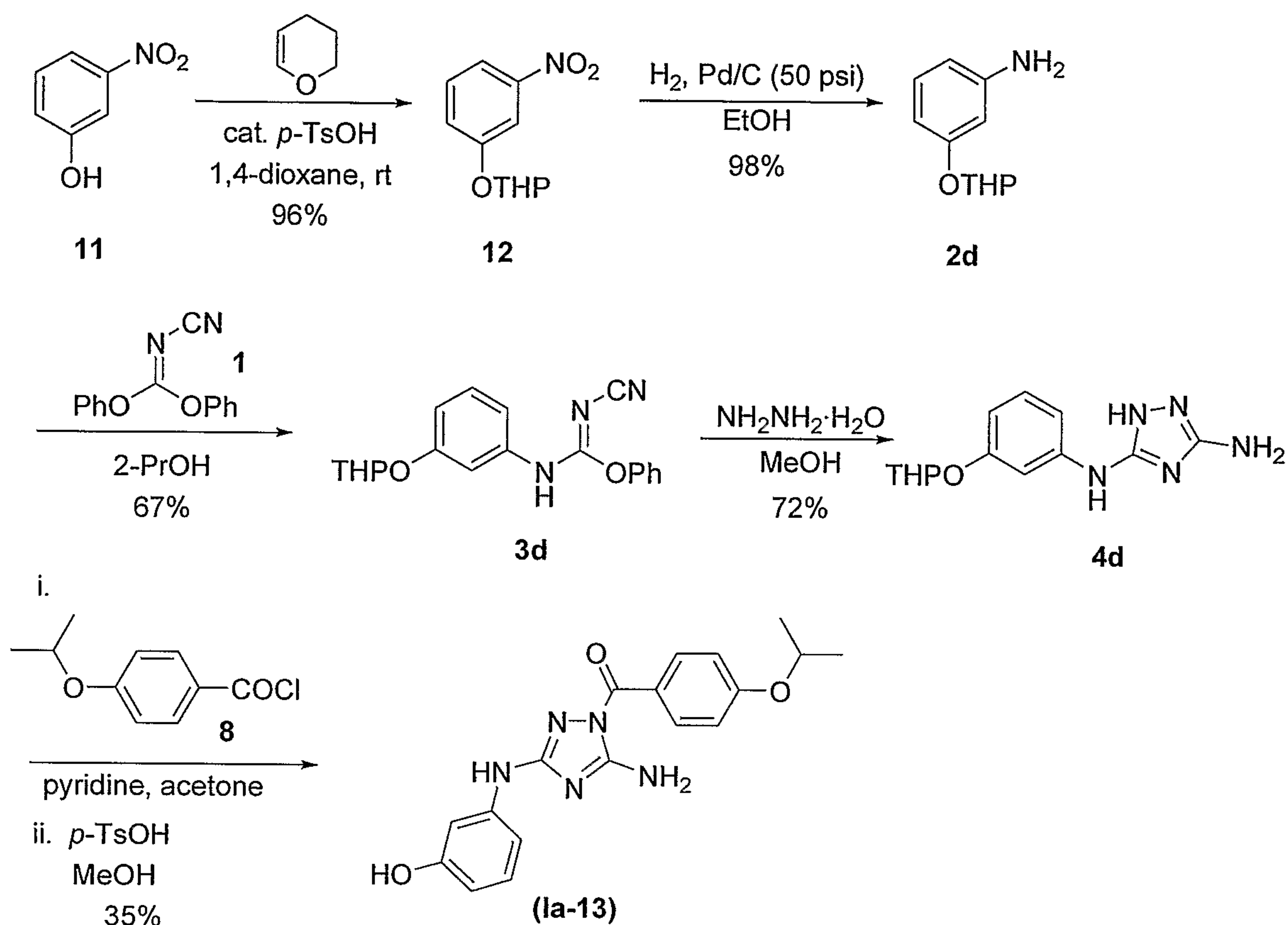
A mixture of **3c** (0.99 g, 3.38 mmol) and hydrazine hydrate (0.16 g, 3.38 mmol) in 2-propanol (20 mL) was stirred at ambient temperature for 24 h. The solids that formed were collected by filtration and washed with 2-propanol, to afford **4c** (0.58 g, 74%) as an off-white solid: ^1H NMR (300 MHz, $\text{DMSO}-d_6$) δ 11.09 (s, 1H), 8.53 (s, 1H), 7.48 (dd, $J = 3.0, 9.0$ Hz, 2H), 6.91 (dd, $J = 3.0, 9.0$ Hz, 2H), 5.83 (br s, 2H), 5.04 (s, 2H); ESI MS m/z 231 [$\text{C}_{10}\text{H}_{10}\text{N}_6\text{O} + \text{H}$] $^+$.

To a stirred ice-cold mixture of **4c** (0.50 g, 2.17 mmol) and pyridine (0.17 g, 2.17 mmol) in acetone (35 mL) was added 4-isopropoxybenzoyl chloride **8** (0.43 g, 2.17 mmol). After stirring for 1 h at ice bath temperature and an additional 16 h at ambient temperature, the reaction mixture was slowly added to a vigorously stirred solution of water (100 mL). The crude product formed a yellow precipitate, which was collected by filtration. Purification by flash chromatography (98:2 methylene chloride/methanol) afforded 5-amino-3-[4-(cyanomethoxy)phenylamino]-1-(4-(*iso*-propoxy)phenyl)carbonyl-1H-1,2,4-triazole (**1a-12**) (0.27 g, 31%) as a beige solid: R_f 0.72 (97:3 methylene chloride/methanol); mp (DSC) 182.9-186.1 $^\circ\text{C}$; ^1H NMR (300 MHz, $\text{DMSO}-d_6$) δ 9.22 (s, 1H), 8.25 (d, $J = 9.0$ Hz, 2H), 7.77 (br s, 2H), 7.52 (d, $J = 9.0$ Hz, 2H), 7.09 (d, $J = 9.0$ Hz, 2H), 7.00 (d, $J = 9.0$ Hz, 2H), 5.09 (s, 2H), 4.94-4.78 (m, 1H), 1.33 (d, $J = 6.0$ Hz, 6H); ^{13}C NMR (75 MHz, $\text{DMSO}-d_6$) 165.5, 161.0, 158.1, 157.4, 150.0, 136.2, 133.0, 123.9, 117.7, 116.7, 115.5, 114.4, 69.5, 54.0, 21.6; IR (ATR) 3353, 3098, 1678, 1585, 1506 cm^{-1} ; ESI MS m/z 393 [$\text{C}_{20}\text{H}_{20}\text{N}_6\text{O}_3 + \text{H}$] $^+$; HPLC (Method A) 94.3 % (AUC), $t_R = 14.00$ min.

Compound (**1a-13**), as set forth below in Reaction Scheme 1F, is a compound of formula (Ia), as set forth above in the Summary of the Invention, and is prepared as illustrated below in Reaction Scheme 1F. For purposes of convenience, the minor product, *i.e.*, the corresponding compound of formula (Ib), is not illustrated in Reaction Scheme 1F, but it is understood that this compound is prepared as well by the method disclosed therein and can be isolated and separated from compound (**1a-13**) by standard isolation and separation techniques.

REACTION SCHEME 1F

Preparation of 5-Amino-3-[3-(hydroxy)phenylamino]-1-(4-(*iso*-propoxy)phenyl)carbonyl-1H-1,2,4-triazole



5 In general, compound (**la-13**) is prepared as shown above in Reaction Scheme 1F starting from commercially available 3-nitrophenol **11**.

Specifically, to a solution of 3-nitrophenol **11** (2.00 g, 14.4 mmol) in 1,4-dioxane (40 mL) was added tetrahydro-2H-pyran (4.84 g, 57.5 mmol) and *p*-TsOH (a few crystals). The reaction mixture was stirred at ambient temperature under N₂ for 60 h.

10 The dioxane was removed under reduced pressure and the crude oil obtained was diluted with EtOAc (100 mL). The organic layer was washed with 1 N NaOH (2 x 50 mL), brine (30 mL), dried (Na₂SO₄) and concentrated to afford **12** (3.08 g, 96%) as a yellow oil: ¹H NMR (300 MHz, CDCl₃) δ 7.92-7.90 (m, 1H), 7.86-7.82 (m, 1H), 7.45-7.34 (m, 2H), 5.50 (t, *J* = 2.7 Hz, 1H), 3.89-3.81 (m, 1H), 3.68-3.61 (m, 1H), 2.01-1.95 (m, 1H),

15 1.92-1.87 (m, 2H), 1.75-1.58 (m, 3H).

A mixture of **12** (3.08 g, 13.8 mmol) and 10% Pd/C (0.30 g) in EtOH (150 mL) at ambient temperature was shaken in an atmosphere of hydrogen at 50 psi. After 1 h, the reaction mixture was filtered through diatomaceous earth and the solids washed with

EtOH. The filtrate was concentrated to afford **2d** (2.62 g, 98%) as a yellow oil: ^1H NMR (300 MHz, CDCl_3) δ 7.04 (t, $J = 8.0$ Hz, 1H), 6.47-6.41 (m, 2H), 6.34-6.30 (m, 1H), 5.37 (t, $J = 3.2$ Hz, 1H), 3.95-3.87 (m, 1H), 3.72-3.56 (m, 3H), 2.02-1.89 (m, 1H), 1.85-1.80 (m, 2H), 1.75-1.54 (m, 3H).

5 A mixture of **2d** (2.62 g, 13.6 mmol) and diphenylcyanocarbimide (3.23 g, 13.6 mmol) in 2-PrOH (40 mL) was stirred at ambient temperature under N_2 for 20 h. The solids that formed were collected by filtration and washed with 2-PrOH to afford **3d** (3.08 g, 67%) as a white solid: ^1H NMR (300 MHz, CDCl_3) δ 7.90 (br s, 1H), 7.47-7.40 (m, 2H), 7.36-7.28 (m, 2H), 7.21-7.14 (m, 2H), 7.10 (t, $J = 2.1$ Hz, 1H), 6.97 (dt, $J = 7.6$, 1.6 Hz, 10 2H), 5.40 (t, $J = 3.2$ Hz, 1H), 3.87 (dt, $J = 11.7$, 3.0 Hz, 1H), 3.63-3.58 (m, 1H), 2.05-1.91 (m, 1H), 1.88-1.83 (m, 2H), 1.74-1.62 (m, 3H).

A mixture of **3d** (3.08 g, 9.16 mmol) and hydrazine monohydrate (0.46 g, 9.16 mmol) in MeOH (40 mL) was stirred at ambient temperature for 20 h. The MeOH was removed under reduced pressure and the crude oil obtained was partitioned between 15 EtOAc (100 mL) and water (100 mL). The aqueous layer was extracted with EtOAc (100 mL) and the combined organic extracts were washed with brine (30 mL), dried (Na_2SO_4) and concentrated to give the crude product. Purification by flash chromatography (CH_2Cl_2 then 9:1 $\text{CH}_2\text{Cl}_2/\text{MeOH}$) afforded **4d** (1.81 g, 72%) as a white foam: ^1H NMR (300 MHz, $\text{DMSO}-d_6$) δ 11.12 (s, 1H), 8.58 (s, 1H), 7.38 (s, 1H), 7.03-7.01 (m, 2H), 6.42- 20 6.38 (m, 1H), 5.86 (s, 2H), 5.35 (t, $J = 3.0$ Hz, 1H), 3.81-3.73 (m, 1H), 3.55-3.48 (m, 1H), 1.88-1.53 (m, 6H).

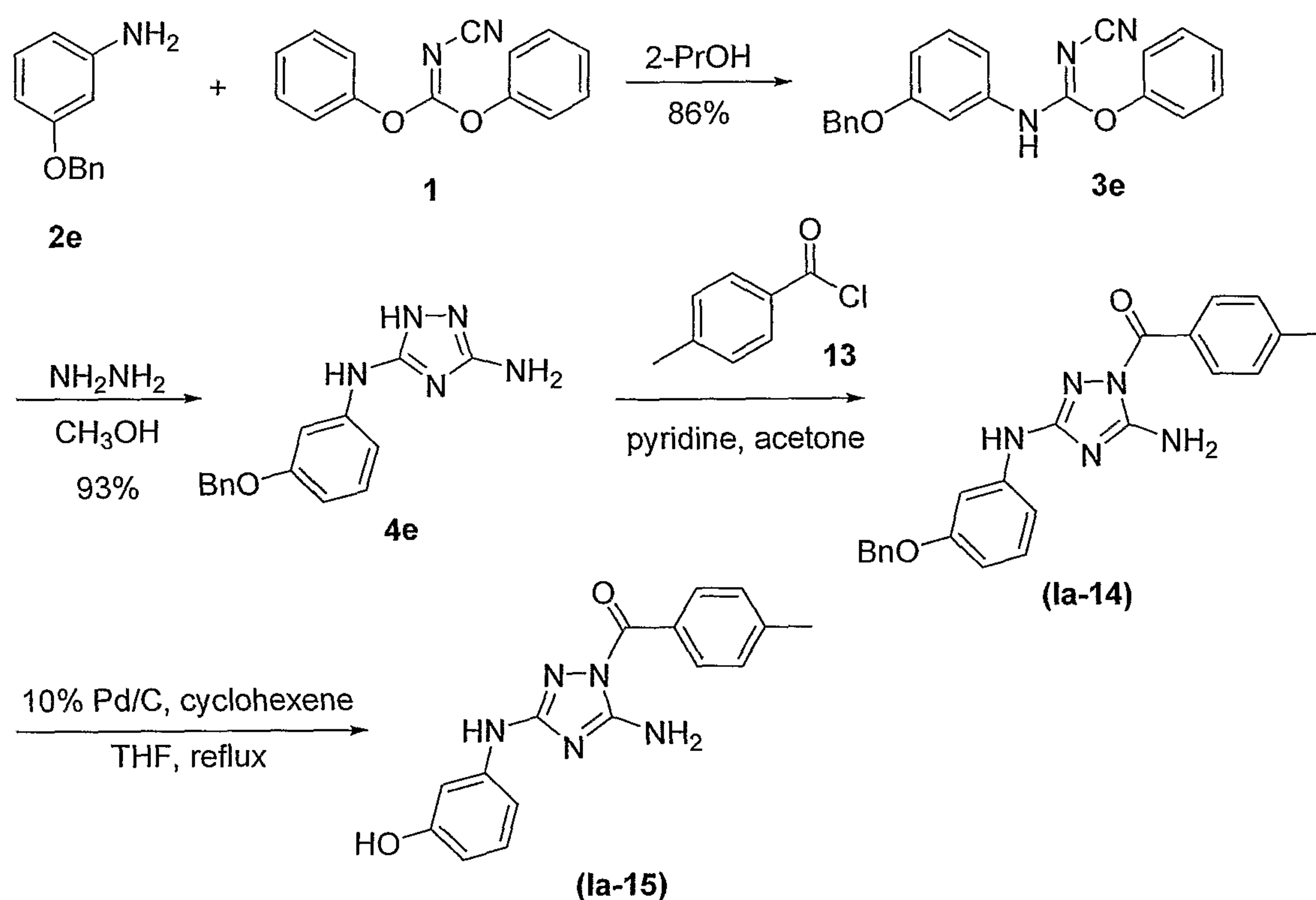
To a ice-cold mixture of **4d** (0.50 g, 1.80 mmol) and pyridine (0.14 g, 1.80 mmol) in acetone (25 mL) was added dropwise a solution of 4-isopropoxybenzoyl chloride (**8**) (0.36 g, 1.80 mmol) in acetone (5 mL) over 2 min and the resulting solution was stirred at 25 ambient temperature for 20 h. The acetone was removed under reduced pressure and the crude yellow foam obtained was dissolved in MeOH and *p*-TsOH (a few crystals) was added. After stirring for 7 d at ambient temperature, the MeOH was removed under reduced pressure and the residue partitioned between EtOAc (100 mL) and water (100 mL). The organic layer was washed with brine (30 mL), dried (Na_2SO_4), and 30 concentrated to give the crude product. Purification by flash chromatography (95:5 $\text{CH}_2\text{Cl}_2/\text{MeOH}$) gave 5-amino-3-[3-(hydroxy)phenylamino]-1-(4-(iso-propoxy)phenyl)carbonyl-1H-1,2,4-triazole (**1a-13**) (0.22 g, 35%) as a yellow solid: R_f 0.53 (9:1 $\text{CH}_2\text{Cl}_2/\text{MeOH}$); mp (DSC) 204.2-211.9 $^\circ\text{C}$; ^1H NMR (300 MHz, $\text{DMSO}-d_6$) δ 9.17 (s, 1H), 9.13 (s, 1H), 8.26 (d, $J = 8.8$ Hz, 2H), 7.75 (s, 2H), 7.07-6.96 (m, 5H), 6.29- 35 6.26 (m, 1H), 4.82-4.74 (m, 1H), 1.32 (d, $J = 5.9$ Hz, 6H); ^{13}C NMR (75 MHz, $\text{DMSO}-d_6$)

δ 165.9, 161.4, 158.4, 158.0, 157.7, 142.4, 133.5, 129.6, 124.3, 114.8, 108.2, 107.8, 104.4, 70.0, 22.0; IR (ATR) 3426, 3305, 1661 cm^{-1} ; APCI MS m/z 354 $[\text{C}_{18}\text{H}_{19}\text{N}_5\text{O}_3 + \text{H}]^+$; HPLC (Method A) >99% (AUC), t_R = 12.24 min. Anal. Calcd for $\text{C}_{18}\text{H}_{19}\text{N}_5\text{O}_3$: C, 61.18; H, 5.42; N, 19.82. Found: C, 61.10; H, 5.29; N, 19.69.

- 5 Compounds **(la-14)** and **(la-15)**, as set forth below in Reaction Scheme 1G, are compounds of formula (Ia), as set forth above in the Summary of the Invention, and are prepared as illustrated below in Reaction Scheme 1G. For purposes of convenience, the minor products, *i.e.*, the corresponding compounds of formula (Ib), are not illustrated in Reaction Scheme 1G, but it is understood that these compounds are prepared as well by
10 the method disclosed therein and can be isolated and separated from compounds **(la-14)** and **(la-15)** by standard isolation and separation techniques.

REACTION SCHEME 1G

Preparation of 5-Amino-3-[3-(benzyloxy)phenylamino]-1-(4-(methyl)phenyl)carbonyl-1H-1,2,4-triazole



In general, condensation of benzyloxylaniline and diphenylcyanocarbonimidate afforded intermediate **3e**, which was then treated with hydrazine to give triazole **4e**. Acylation of **4e** with *p*-toluoyl chloride (**13**) in the presence of pyridine afforded compound **(la-14)** in good yield. Initial attempts to remove the benzyl protecting group

by hydrogenolysis with Pd/C (50 psi) were unsuccessful. Deprotection of compound (**la-14**) was achieved with cyclohexene in the presence of 10% Pd/C and refluxing THF to provide (**la-15**).

Specifically, a solution of 3-benzyloxyaniline **2e** (0.84 g, 4.2 mmol) and
5 diphenylcyanocarbonimide **1** (1.0 g, 4.2 mmol) in 2-PrOH (15 mL) was stirred at ambient temperature under N₂. After 5 h, the solids were collected by filtration washing with cold 2-PrOH to afford **3e** (1.25g, 86%) as a white solid: ¹H NMR (300 MHz, DMSO-*d*₆) δ 7.47-7.26 (m, 12H), 7.17 (s, 1H), 7.05 (d, *J* = 7.9 Hz, 1H), 6.90 (d, *J* = 8.3 Hz, 1H), 5.10 (s, 2H).

10 To a mixture of **3e** (1.25 g, 3.6 mmol) in CH₃OH (20 mL) was added NH₂NH₂•H₂O (0.2 g, 3.8 mmol) dropwise. Once the addition was completed, the reaction was stirred at ambient temperature. After 2 h, the methanol was removed under reduced pressure and the residue partitioned between water (50 mL) and EtOAc (50 mL). The organic
15 layer was washed with brine (20 mL), dried (Na₂SO₄), filtered, and concentrated. The crude foam obtained was purified by flash chromatography (9:1 CH₂Cl₂/CH₃OH) to afford **4e** (0.93 g, 93%) as a white solid: ¹H NMR (300 MHz, DMSO-*d*₆) δ 11.13 (s, 1H), 8.61 (s, 1H), 7.46-7.32 (m, 6H), 7.04-6.97 (m, 2H), 6.37 (d, *J* = 7.1 Hz, 1H), 5.86 (s, 2H), 5.02 (s, 2H).

Pyridine (0.56 g, 7.1 mmol) was added to a mixture of **4e** (2.0 g, 7.1 mmol) and
20 acetone (60 mL) at ambient temperature under N₂. The reaction was cooled to 0 °C and *p*-toluoyl chloride (1.1 g, 7.1 mmol) was added dropwise over 2 min. Once the addition was complete, the reaction was stirred at ambient temperature for 1 h. The acetone was removed under reduced pressure and the residue diluted in water (150 mL). Solids were collected by filtration, washing with water, and then purified by flash chromatography
25 (95:5 CH₂Cl₂/CH₃OH) to afford 5-amino-3-[3-(benzyloxy)phenylamino]-1-(4-(methyl)phenyl)carbonyl-1H-1,2,4-triazole (**la-14**) (2.12 g, 75%) as a pale-yellow solid: ¹H NMR (300 MHz, DMSO-*d*₆) δ 9.35 (s, 1H), 8.10 (d, *J* = 8.1 Hz, 2H), 7.79 (br s, 2H), 7.59 (t, *J* = 2.1 Hz, 1H), 7.41-7.34 (m, 5H), 7.27 (d, *J* = 8.1 Hz, 2H), 7.11 (t, *J* = 8.1 Hz, 1H), 6.89 (dd, *J* = 1.3, 8.0 Hz, 1H), 6.47 (dd, *J* = 2.3, 7.9 Hz, 1H), 4.91 (s, 2H), 2.20 (s, 3H).

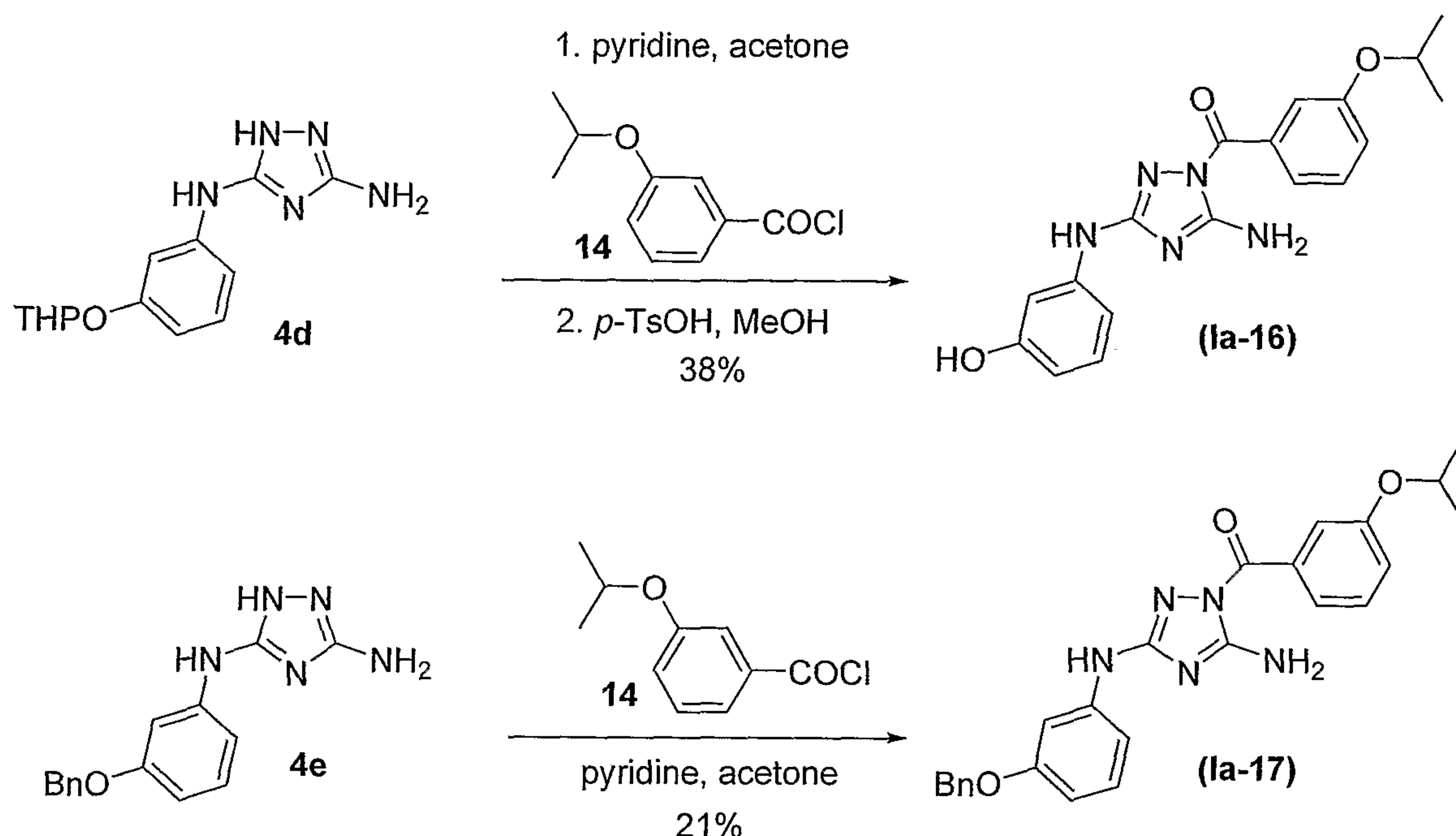
30 To a solution of 5-amino-3-[3-(benzyloxy)phenylamino]-1-(4-(methyl)phenyl)carbonyl-1H-1,2,4-triazole (**la-14**) (0.50 g, 1.3 mmol) in THF (20 mL) was added cyclohexene (10 mL) and 10% Pd/C (0.10 g). The reaction was stirred at 90 °C under N₂ for 48 h, then filtered through diatomaceous earth, washing with THF, and concentrated to give a yellow-orange solid. Purification by flash chromatography (95:5
35 CH₂Cl₂/CH₃OH) followed by triturated in CH₂Cl₂ afforded 5-amino-3-[3-

(hydroxy)phenylamino]-1-(4-(methyl)phenyl)carbonyl-1H-1,2,4-triazole (**la-15**) (0.05 g, 14%) as a yellow solid: R_f 0.22 (95:5 CH₂Cl₂/CH₃OH); mp (DSC) 2 endothermic events, 214.7-217.5 °C, 322.1-329.8 °C, 1 exothermic event, 226.8-228.8 °C; ¹H NMR (300 MHz, DMSO-*d*₆) δ 9.14 (d, *J* = 8.1 Hz, 2H), 8.13 (d, *J* = 8.2 Hz, 2H), 7.77 (s, 2H), 7.36 (d, *J* = 8.1 Hz, 2H), 6.99-6.94 (m, 3H), 6.29-6.25 (m, 1H), 2.45 (s, 3H); ¹³C NMR (75 MHz, DMSO-*d*₆) δ 166.2, 158.2, 157.6, 157.3, 142.9, 142.0, 130.6, 129.7, 129.1, 128.5, 107.8, 107.4, 104.0, 21.0; IR (ATR) 3363, 1668 cm⁻¹; APCI MS *m/z* 310 [C₁₆H₁₅N₅O₂ + H]⁺; HPLC (Method A) 96.9% (AUC), *t_R* = 11.5 min. Anal. Calcd for C₁₆H₁₅N₅O₂·0.50H₂O: C, 60.47; H, 4.92; N, 22.03. Found: C, 60.87; H, 4.65; N, 21.75.

Compounds (**la-16**) and (**la-17**), as set forth below in Reaction Scheme 1H, are compounds of formula (Ia), as set forth above in the Summary of the Invention, and are prepared as illustrated below in Reaction Scheme 1H. For purposes of convenience, the minor products, *i.e.*, the corresponding compounds of formula (Ib), are not illustrated in Reaction Scheme 1H, but it is understood that these compounds are prepared as well by the method disclosed therein and can be isolated and separated from compounds (**la-16**) and (**la-17**) by standard isolation and separation techniques.

REACTION SCHEME 1H

Preparation of 5-Amino-3-[3-(hydroxy)phenylamino]-1-(3-(*iso*-propoxy)phenyl)carbonyl-1H-1,2,4-triazole and 5-Amino-3-[3-(benzyloxy)phenylamino]-1-(3-(*iso*-propoxy)phenyl)carbonyl-1H-1,2,4-triazole



In general, compounds of **(la-16)** and **(la-17)** are prepared from the acylation of compounds **4d** and **4e**, respectively, with compound **14**. Compounds **4d** and **4e** can be prepared by methods disclosed herein or by methods known to one skilled in the art.

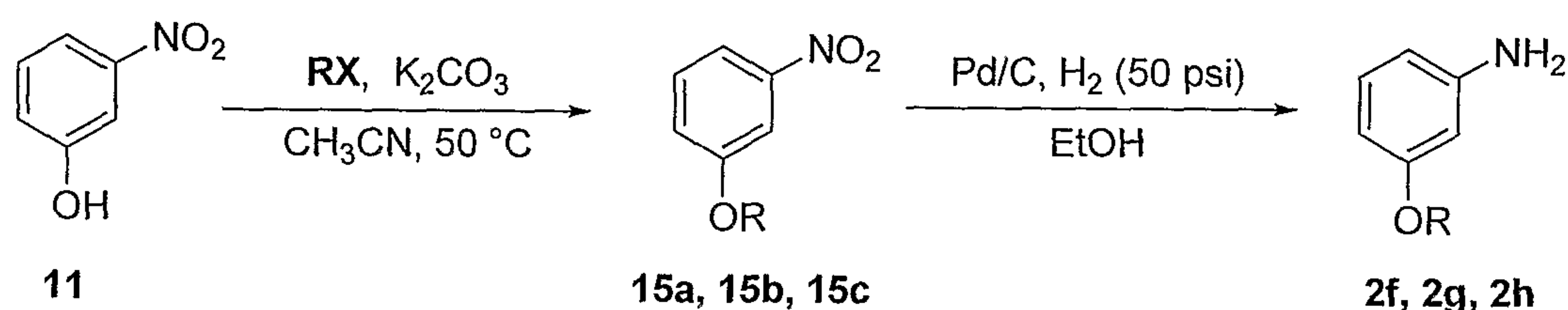
Specifically, to an ice-cold mixture of **4d** (0.50 g, 1.80 mmol) and pyridine (0.28 g, 3.60 mmol) in acetone (10 mL) placed under N₂ was added dropwise a solution of 3-isopropoxybenzoyl chloride **14** (0.36 g, 1.80 mmol) in acetone (5 mL) over 2 min and the resulting solution was stirred at ambient temperature for 20 h. The acetone was concentrated to a small volume (5 mL) and diluted in water (15 mL). The resulting precipitate was collected by filtration, dissolved in acetone and the organic solution dried (Na₂SO₄) and concentrated to afford a yellow foam. The yellow foam and *p*-TsOH (a few crystals) in MeOH (15 mL) was stirred at 50 °C for 24 h then at ambient temperature for 6 d. The MeOH was removed under reduced pressure and the residue was partitioned between EtOAc (30 mL) and water (30 mL). The aqueous layer was extracted with EtOAc (20 mL) and the combined organics were dried (Na₂SO₄), and concentrated to give the crude product. Purification by flash chromatography (95:5 CH₂Cl₂/MeOH) followed by trituration with CH₂Cl₂ afforded 5-amino-3-[3-(hydroxy)phenylamino]-1-(3-(*iso*-propoxy)phenyl)carbonyl-1H-1,2,4-triazole **(la-16)** (0.36 g, 38%) as a yellow solid: *R_f* 0.55 (9:1 CH₂Cl₂/MeOH); mp (DSC) 211.3-214.8 °C; ¹H NMR (300 MHz, DMSO-*d*₆) δ 9.16 (d, *J* = 3.1 Hz, 2H), 7.80-7.74 (m, 3H), 7.67 (d, *J* = 7.7 Hz, 1H), 7.44 (t, *J* = 8.0 Hz, 1H), 7.19 (dd, *J* = 8.0, 2.2 Hz, 1H), 7.04-6.89 (m, 3H), 6.27 (dd, *J* = 7.8, 1.4 Hz, 1H), 4.72-4.64 (m, 1H), 1.29 (d, *J* = 6.0 Hz, 6H); ¹³C NMR (75 MHz, DMSO-*d*₆) δ 166.5, 158.6, 158.0, 157.7, 157.1, 142.3, 134.2, 129.5, 129.4, 122.7, 120.5, 117.5, 108.1, 107.9, 104.4, 70.0, 22.1; IR (ATR) 3424, 3365, 1689 cm⁻¹; APCI MS *m/z* 354 [C₁₈H₁₉N₅O₃ + H]⁺; HPLC (Method A) 97.9% (AUC), *t_R* = 12.10 min. Anal. Calcd for C₁₈H₁₉N₅O₃: C, 61.18; H, 5.42; N, 19.82. Found: C, 61.11; H, 5.33; N, 19.68.

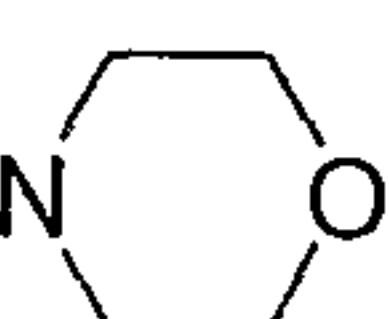
Alternatively, to an ice cold mixture of **4e** (0.30 g, 1.07 mmol) and pyridine (0.08 g, 1.07 mmol) in acetone (25 mL) under N₂ was added dropwise a solution of 3-isopropoxybenzoyl chloride **14** (0.21 g, 1.07 mmol) in acetone (5 mL) over 2 min and the resulting solution was stirred at ambient temperature for 20 h. The acetone was concentrated to a small volume (5 mL) and diluted in water (15 mL). The resulting precipitate was collected by filtration, dissolved in acetone and the organic solution dried (Na₂SO₄) and concentrated to afford 5-amino-3-[3-(benzyloxy)phenylamino]-1-(3-(*iso*-propoxy)phenyl)carbonyl-1H-1,2,4-triazole **(la-17)** (0.10 g, 21%) as a yellow solid: *R_f* 0.63 (9:1 CH₂Cl₂/MeOH); mp (DSC) 131.1-132.4 °C; ¹H NMR (300 MHz, DMSO-*d*₆) δ 9.31 (s, 1H), 7.80 (s, 2H), 7.70-7.63 (m, 2H), 7.40-7.31 (m, 7H), 7.14-7.01 (m, 3H), 6.48-

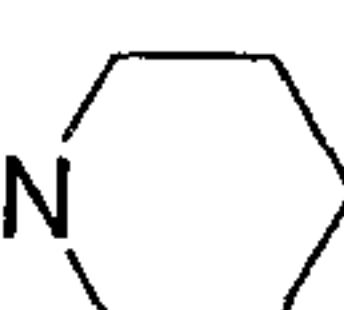
6.47 (m, 1H), 4.92 (s, 2H), 4.66-4.58 (m, 1H), 1.24 (d, $J = 6.0$ Hz, 6H); ^{13}C NMR (75 MHz, DMSO- d_6) δ 165.1, 157.5, 156.8, 155.9, 155.5, 140.8, 135.7, 132.9, 127.9, 127.7, 127.0, 126.4, 126.2, 120.9, 118.4, 115.7, 108.1, 105.3, 101.9, 68.3, 67.5, 20.4; IR (ATR) 3685, 3434, 3343, 1674 cm^{-1} ; APCI MS m/z 444 [$\text{C}_{25}\text{H}_{25}\text{N}_5\text{O}_3 + \text{H}$] $^+$; HPLC (Method A) >99% (AUC), $t_R = 16.29$ min. Anal. Calcd for $\text{C}_{25}\text{H}_{25}\text{N}_5\text{O}_3 \cdot 0.25\text{H}_2\text{O}$: C, 66.70; H, 5.68; N, 15.79. Found: C, 67.42; H, 5.71; N, 15.63.

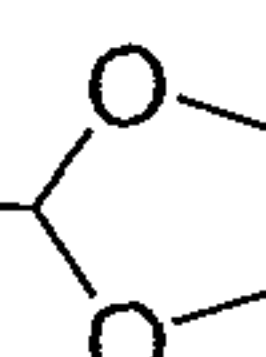
Compounds **2f**, **2g** and **2h**, as set forth below in Reaction Scheme 1I, are intermediates in the preparation of compounds of the invention and are prepared as illustrated below in Reaction Scheme 1I. In Scheme 1I, "X" represents, e.g., an appropriate leaving group on the R as represented. Typical leaving groups include halides, such as bromide, chloride, iodide and the like.

REACTION SCHEME 1I



15a and 2f: R is $-\text{CH}_2\text{CH}_2-\text{N}$ 

15b and 2g: R is $-\text{CH}_2\text{CH}_2-\text{N}$ 

15c and 2h: R is $-\text{CH}_2\text{CH}_2-$ 

Specifically, a mixture of 3-nitrophenol **11** (2.0 g, 14.3 mmol), K_2CO_3 (4.17g, 30.2 mmol), and *N*-(2-chloroethyl)morpholine hydrochloride (2.94 g, 15.8 mmol) in DMF (20 mL) was stirred under N_2 at 50°C for 5 h. The DMF was removed under reduced pressure and the residue was partitioned between EtOAc (50 mL) and water (50 mL). The aqueous layer was extracted with EtOAc (50 mL) and the combined organics were dried (Na_2SO_4) and concentrated to give **15a** (3.39 g, 94%) as a brown oil: ^1H NMR (300 MHz, CDCl_3) δ 7.85-7.81 (m, 1H), 7.76-7.74 (m, 1H), 7.45-7.40 (m, 1H), 7.25-7.24 (m, 1H), 4.18 (t, $J = 5.5$ Hz, 2H), 3.76-3.71 (m, 4H), 2.84 (t, $J = 5.5$ Hz, 2H), 2.61-2.50 (m, 4H).

A mixture of **15a** (3.39 g, 13.4 mmol) and 10% Pd/C (0.17 g) in EtOH (100 mL) at ambient temperature was shaken in an atmosphere of hydrogen at 50 psi. After 1 h, the

reaction was filtered through diatomaceous earth, the solids washed with EtOAc and the filtrate concentrated to give the crude product. Purification by flash chromatography (95:5 CH₂Cl₂/MeOH) afforded **2f** (1.68 g, 56%) as a brown oil: ¹H NMR (300 MHz, CDCl₃) δ 7.04 (t, *J* = 8.0 Hz, 1H), 6.33-6.24 (m, 3H), 4.07 (t, *J* = 5.7 Hz, 2H), 3.75-3.72 (m, 4H), 3.65 (s, 2H), 2.78 (t, *J* = 5.7 Hz, 2H), 2.59-2.56 (m, 4H).

Alternatively, a mixture of 3-nitrophenol **11** (3.0 g, 21.6 mmol), K₂CO₃ (6.56 g, 47.4 mmol), and 1-(2-chloroethyl)piperidine hydrochloride (4.80 g, 25.9 mmol) in DMF (30 mL) was stirred at 50 °C under N₂ for 48 h. The DMF was removed under reduced pressure and the residue was partitioned between EtOAc (100 mL) and water (100 mL). The organic layer was washed with water (2 x 50 mL), dried (Na₂SO₄) and concentrated to give the crude product. Purification by flash chromatography (95:5 CH₂Cl₂/MeOH) gave **15b** (2.90 g, 54%) as a brown oil: ESI MS *m/z* 251 [C₁₃H₁₈N₂O₃ + H]⁺.

A mixture of **15b** (2.90 g, 11.6 mmol) and 10% Pd/C (0.22 g) in EtOH (150 mL) at ambient temperature was shaken in an atmosphere of hydrogen at 50 psi. After 30 min, the reaction was filtered through diatomaceous earth, the solids washed with EtOAc and the filtrate was concentrated to afford **2g** (2.57 g, quantitative) as a brown oil: ¹H NMR (300 MHz, CDCl₃) δ 6.86 (t, *J* = 8.3 Hz, 1H), 6.13-6.11 (m, 2H), 6.07-6.04 (m, 1H), 5.01 (s, 2H), 3.92 (t, *J* = 6.0 Hz, 2H), 2.95 (t, *J* = 6.0 Hz, 2H), 2.40-2.38 (m, 4H), 1.52-1.36 (m, 6H).

Alternatively, a mixture of 3-nitrophenol **11** (3.0 g, 21.6 mmol), K₂CO₃ (3.40 g, 24.8 mmol), and 2-(2-bromoethyl)-1,3-dioxolane (4.49 g, 24.8 mmol) in CH₃CN (30 mL) was stirred under N₂ at 50 °C for 24 h. The CH₃CN was removed under reduced pressure and the residue was partitioned between EtOAc (75 mL) and water (75 mL). The aqueous layer was extracted with EtOAc (75 mL) and the combined organic extracts were washed with 1 N NaOH (2 x 30 mL), water (30 mL), dried (Na₂SO₄), and concentrated to afford **15c** (5.11 g, 99%) as a yellow oil: ¹H NMR (300 MHz, DMSO-*d*₆) δ 7.83-7.80 (m, 1H), 7.71-7.69 (m, 1H), 7.58 (t, *J* = 8.2 Hz, 1H), 7.44-7.40 (m, 1H), 5.00 (t, *J* = 4.9 Hz, 1H), 4.20 (t, *J* = 6.5 Hz, 2H), 3.95-3.76 (m, 4H), 2.13-2.03 (m, 2H).

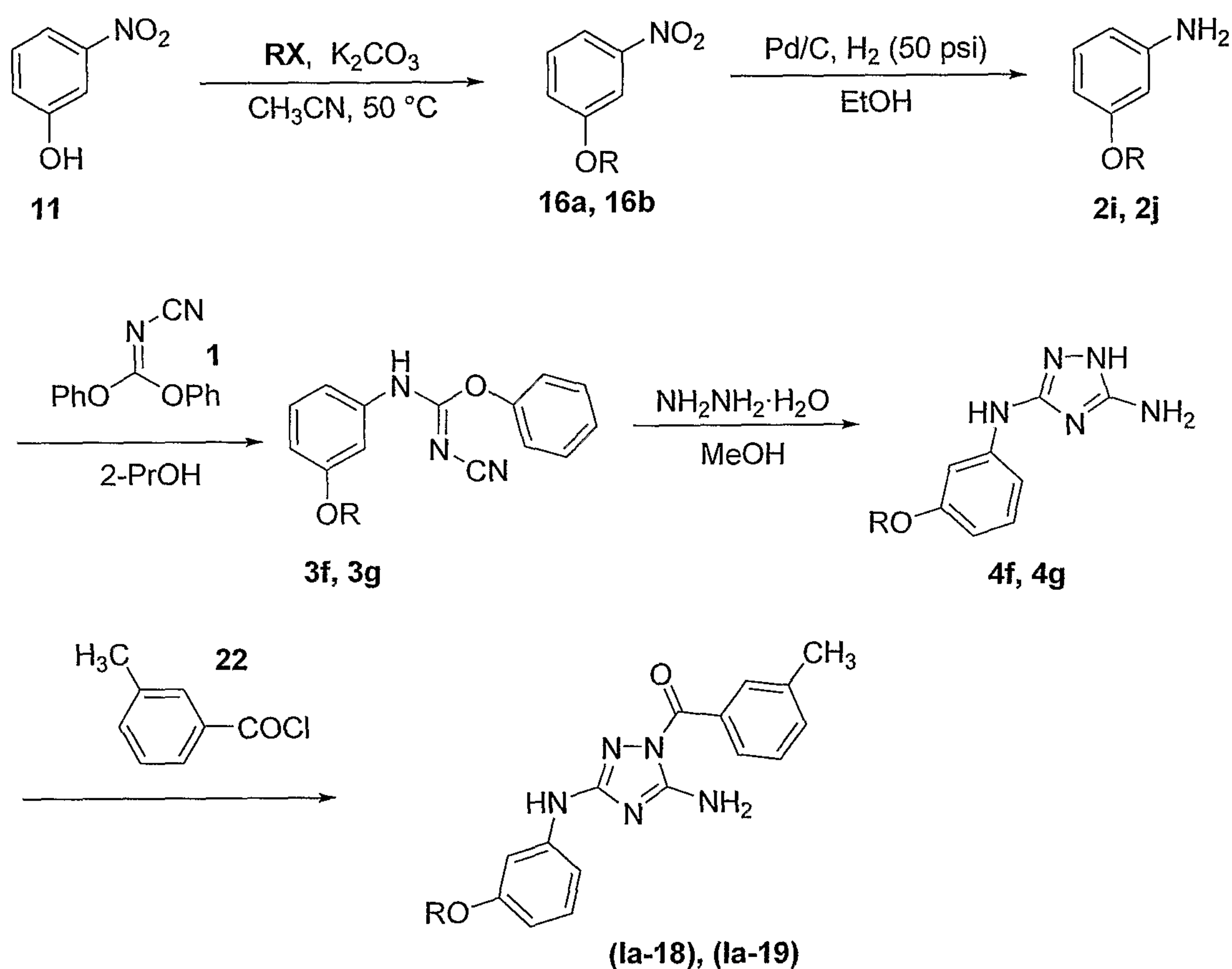
A mixture of **15c** (5.11 g, 21.4 mmol) and 10% Pd/C (0.30 g) in EtOH (175 mL) at ambient temperature was shaken in an atmosphere of hydrogen at 50 psi. After 30 min, the reaction was filtered through diatomaceous earth, the solids washed with EtOAc and the filtrate was concentrated to afford **2h** (4.51 g, quantitative) as a brown oil: ESI MS *m/z* 210 [C₁₁H₁₅NO₃ + H]⁺.

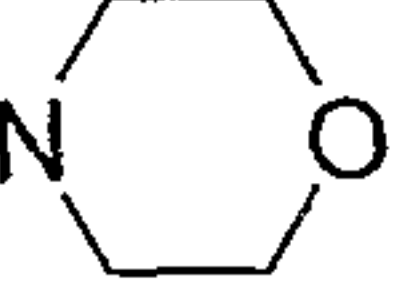
Compounds (**1a-18**) and (**1a-19**), as set forth below in Reaction Scheme 1J, are compounds of formula (1a), as set forth above in the Summary of the Invention, and are

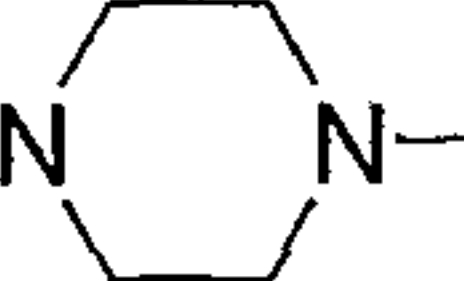
prepared as illustrated below in Reaction Scheme 1J. For purposes of convenience, the minor products, *i.e.*, the corresponding compounds of formula (1b), are not illustrated in Reaction Scheme 1J, but it is understood that these compounds are prepared as well by the method disclosed therein and can be isolated and separated from compounds (1a-18) and (1a-19) by standard isolation and separation techniques.

REACTION SCHEME 1J

Preparation of 5-Amino-1-(3-methylphenyl)carbonyl-3-[3-[2-(4-morpholinyl)ethylaminocarbonylmethoxy]phenyl]amino-1H-1,2,4-triazole and 5-Amino-1-(3-methylphenyl)carbonyl-3-[3-(*N*-*tert*-butoxycarbonyl)piperazin-4-ylcarbonylmethoxy]phenyl]amino-1H-1,2,4-triazole



16a, 2i, 3f, 4f, (1a-18): R is $-\text{CH}_2\text{C}(\text{O})\text{N}(\text{H})\text{CH}_2\text{CH}_2-\text{N}$ 

16b, 2j, 3g, 4g, (1a-19): R is $-\text{CH}_2\text{C}(\text{O})-\text{N}$  $\text{N}-\text{BOC}$

In general, alkylation of 3-nitrophenol 11 was performed using reagents **RX** which are commercially available or prepared by methods disclosed herein to afford

intermediates (**1a-18**) and (**1a-19**). In Reaction Scheme 1J, "X" represents, e.g., an appropriate leaving group on the R as represented. Typical leaving groups include halides, such as bromide, chloride, iodide and the like.

Specifically, the alkylation of 3-nitrophenol **11** was performed as described above in Reaction Scheme 1I using **18**, prepared as described below in Reaction Scheme 1K, to afford **16a** (3.02 g, 34%) as a yellow-orange solid: ¹H NMR (300 MHz, DMSO-*d*₆) δ 8.14–8.10 (m, 1H), 7.87–7.83 (m, 1H), 7.76 (t, *J* = 2.3 Hz, 1H), 7.60 (t, *J* = 8.2 Hz, 1H), 7.46–7.42 (m, 1H), 4.64 (s, 2H), 3.53 (t, *J* = 4.6 Hz, 4H), 3.26 (q, *J* = 6.6 Hz, 2H), 2.38–2.33 (m, 6H).

The reduction of **16a** was performed as described above in Reaction Scheme 1I to afford **2i** (2.81 g, quantitative) as a yellow oil: ¹H NMR (300 MHz, DMSO-*d*₆) δ 7.83–7.79 (m, 1H), 6.89 (t, *J* = 7.9 Hz, 1H), 6.19–6.06 (m, 3H), 5.10 (s, 2H), 4.33 (s, 2H), 3.53 (t, *J* = 4.6 Hz, 4H), 3.24 (q, *J* = 6.5 Hz, 2H), 2.38–2.32 (m, 6H).

The condensation of **2i** was performed as described above in Reaction Scheme 1G. The reaction mixture was concentrated almost to dryness and Et₂O (100 mL) was added. The mixture was vigorously stirred for 0.5 h. The solids which formed were collected by filtration to afford **3f** (6.14 g, quantitative) as a pale yellow solid: ¹H NMR (300 MHz, DMSO-*d*₆) δ 10.86 (br s, 1H), 7.98–7.94 (m, 1H), 7.48–7.42 (m, 2H), 7.34–7.20 (m, 4H), 7.11–7.02 (m, 2H), 6.85–6.81 (m, 1H), 4.48 (s, 2H), 3.52 (t, *J* = 4.6 Hz, 4H), 3.23 (q, *J* = 6.5 Hz, 2H), 2.35–2.34 (m, 6H).

The cyclization of **3f** was performed as described above in Reaction Scheme 1G to afford **4f** (0.90 g, 45%) as an off-white solid: ¹H NMR (300 MHz, DMSO-*d*₆) δ 11.15 (s, 1H), 8.65 (s, 1H), 7.88–7.84 (m, 1H), 7.28 (s, 1H), 7.08–7.01 (m, 2H), 6.33–6.30 (m, 1H), 5.85 (s, 2H), 4.38 (s, 2H), 3.52 (t, *J* = 4.5 Hz, 4H), 3.30–3.21 (m, 2H), 2.38–2.32 (m, 6H).

The acylation of **4f** was performed as described above in Reaction Scheme 1G. The mixture was concentrated to approximately 15 mL and poured into a mixture of water (50 mL) and saturated NaHCO₃ (50 mL). The aqueous mixture was extracted with EtOAc (2 x 75 mL) and the combine organics were washed with brine (30 mL), dried (Na₂SO₄), and concentrated under reduced pressure. The crude product was slurried in acetone and filtered to afford 5-amino-1-(3-methylphenyl)carbonyl-3-[3-[2-(4-morpholinyl)ethylaminocarbonylmethoxy]phenyl]amino-1H-1,2,4-triazole (**1a-18**) (0.28 g, 42%) as a yellow solid: *R*_f 0.51 (9:1 methylene chloride/methanol); mp 145–147 °C; ¹H NMR (300 MHz, DMSO-*d*₆) δ 9.35 (s, 1H), 8.02 (s, 1H), 7.98–7.95 (m, 1H), 7.85–7.82 (m, 3H), 7.50–7.46 (m, 2H), 7.29–7.28 (m, 1H), 7.15–7.07 (m, 2H), 6.46–6.42 (m, 1H),

4.36 (s, 2H), 3.52 (t, $J = 4.5$ Hz, 4H), 3.25 (q, $J = 6.5$ Hz, 2H), 2.41 (s, 3H), 2.38–2.32 (m, 6H); ^{13}C NMR (75 MHz, DMSO- d_6) δ 165.8, 164.9, 156.5, 156.4, 155.6, 140.5, 135.6, 131.4, 130.9, 129.2, 127.6, 126.2, 125.8, 108.4, 104.3, 102.0, 65.3, 64.5, 55.3, 51.4, 33.7, 19.2; IR (ATR) 3433, 3249, 3197, 1667 cm^{-1} ; APCI MS m/z 480 [$\text{C}_{24}\text{H}_{29}\text{N}_7\text{O}_4 + \text{H}$] $^+$; HPLC (Method 2) 97.6% (AUC), $t_R = 8.99$ min. Anal. Calcd for $\text{C}_{24}\text{H}_{29}\text{N}_7\text{O}_4$: C, 60.11; H, 6.10; N, 20.45. Found: C, 60.22; H, 5.92; N, 20.41.

Alternatively, the alkylation of 3-nitrophenol **11** was performed as described above in Reaction Scheme 1I using **20**, as prepared below in Reaction Scheme 1K, to afford **16b** (6.20 g, 99%) as a brown, gummy solid: ^1H NMR (300 MHz, DMSO- d_6) δ 7.83–7.80 (m, 1H), 7.73 (t, $J = 2.3$ Hz, 1H), 7.57 (t, $J = 8.2$ Hz, 1H), 7.42–7.39 (m, 1H), 5.04 (s, 2H), 3.43–3.32 (m, 8H), 1.41 (s, 9H).

The reduction of **16b** was performed as described as described above in Reaction Scheme 1I to afford **2j** (5.79 g, quantitative) as an off-white, gummy solid: ^1H NMR (300 MHz, DMSO- d_6) δ 6.87 (t, $J = 8.0$ Hz, 1H), 6.17–6.05 (m, 3H), 5.05 (s, 2H), 4.67 (s, 2H), 3.45–3.31 (m, 8H), 1.41 (s, 9H).

The condensation of **2j** was performed as described above in Reaction Scheme 1G to afford **3g** (7.00 g, 86%) as a white solid: ^1H NMR (300 MHz, DMSO- d_6) δ 10.85 (s, 1H), 7.46–7.41 (m, 2H), 7.31–7.26 (m, 4H), 7.06–7.03 (m, 2H), 6.81–6.78 (m, 1H), 4.84 (s, 2H), 3.40–3.28 (m, 8H), 1.41 (s, 9H).

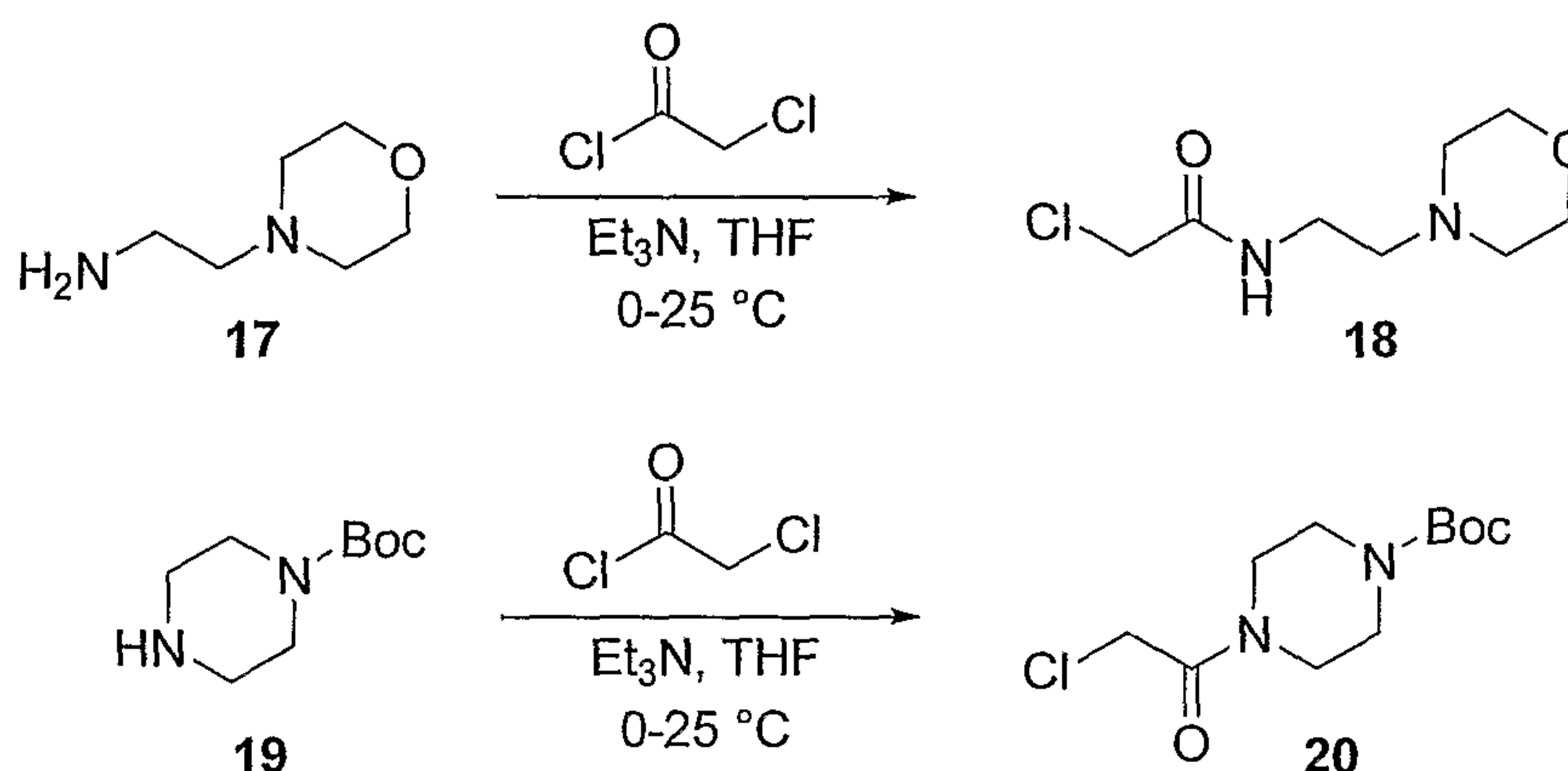
The cyclization of **3g** was performed as described above in Reaction Scheme 1G. The mixture was concentrated almost to dryness and Et_2O (100 mL) was added. The mixture was stirred vigorously at 0 °C for 1 h and the solids were collected by filtration to afford **4g** (5.67 g, 93%) as a white solid: ^1H NMR (300 MHz, DMSO- d_6) δ 11.12 (s, 1H), 8.60 (s, 1H), 7.19 (s, 1H), 7.06–7.02 (m, 2H), 6.31–6.29 (m, 1H), 5.85 (s, 2H), 4.71 (s, 2H), 3.45–3.26 (m, 8H), 1.41 (s, 9H).

The acylation of **4g** was performed as described above in Reaction Scheme 1G with *m*-toluoyl chloride **22**. The mixture was concentrated almost to dryness and water (50 mL) was added. The mixture was stirred vigorously for 1 h, the solids that formed were collected by filtration and purified by trituration with acetonitrile to afford 5-amino-1-(3-methylphenyl)carbonyl-3-[3-(*N*-*tert*-butoxycarbonyl)piperazin-4-ylcarbonylmethoxy]phenyl]amino-1H-1,2,4-triazole (**1a-19**) (0.68 g, 75%) as a yellow solid: R_f 0.56 (9:1 methylene chloride/methanol); mp 206–208 °C; ^1H NMR (300 MHz, DMSO- d_6) δ 9.32 (s, 1H), 8.04 (s, 1H), 7.95–7.93 (m, 1H), 7.81 (s, 2H), 7.48–7.40 (m, 2H), 7.23 (s, 1H), 7.13–7.04 (m, 2H), 6.43–6.40 (m, 1H), 4.69 (s, 2H), 3.43–3.27 (m, 8H), 2.41 (s, 3H), 1.41 (s, 9H); ^{13}C NMR (75 MHz, DMSO- d_6) δ 166.9, 166.3, 158.7, 158.4,

157.6, 154.0, 142.3, 137.5, 133.3, 132.9, 131.2, 129.5, 128.1, 127.8, 110.2, 105.9, 104.1, 79.5, 66.3, 44.3, 41.3, 28.3, 21.1; IR (ATR) 3421, 3128, 1694, 1654 cm^{-1} ; APCI MS m/z 536 [$\text{C}_{27}\text{H}_{33}\text{N}_7\text{O}_5 + \text{H}^+$]; HPLC (Method 2) 99.0% (AUC), $t_R = 13.72$ min. Anal. Calcd for $\text{C}_{27}\text{H}_{33}\text{N}_7\text{O}_5$: C, 60.55; H, 6.21; N, 18.31. Found: C, 60.52; H, 6.03; N, 18.35.

5 Compounds **18** and **20**, as set forth below in Reaction Scheme 1K, are alkylating agents used above in Reaction Scheme 1J for compounds of **RX** and are prepared as illustrated below in Reaction Scheme 1K.

REACTION SCHEME 1K



10 In particular, a mixture of 2-morpholin-4-yl-ethylamine hydrochloride **17** (5.0 g, 38.4 mmol) and Et_3N (4.31 g, 42.2 mmol) in THF (60 mL) was cooled to 0°C and chloroacetyl chloride (4.34 g, 38.4 mmol) was added dropwise over 2–3 min. The reaction mixture was stirred at 0°C for 1 h and then at ambient temperature for 20 h. The mixture was filtered, concentrated, and the residue partitioned between EtOAc (75 mL) and water (25 mL). The organic solution was dried (Na_2SO_4) and concentrated to afford **18** (5.92, 72%) as a brown oil: ^1H NMR (300 MHz, $\text{DMSO}-d_6$) δ 8.14 (br s, 1H), 4.06 (s, 2H), 3.56 (t, $J = 4.6$ Hz, 4H), 3.21 (q, $J = 6.6$ Hz, 2H), 2.38–2.33 (m, 6H).

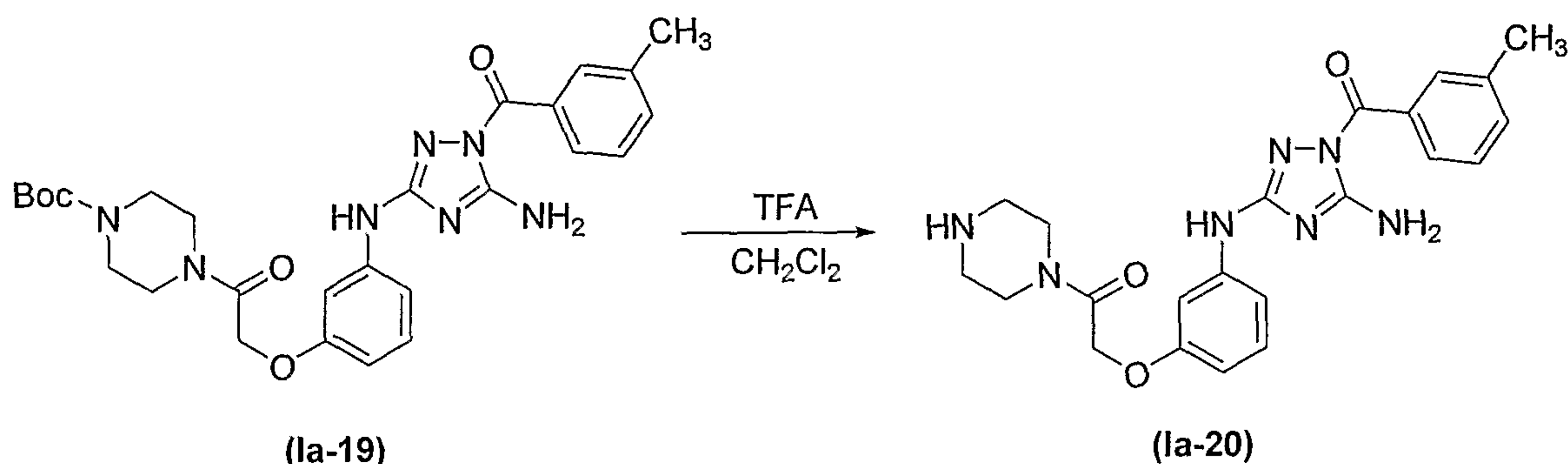
Alternatively, a mixture of piperazine-1-carboxylic acid *tert*-butyl ester **19** (3.10 g, 16.6 mmol) and Et_3N (1.76 g, 17.4 mmol) in THF (40 mL) was cooled to 0°C and chloroacetyl chloride (1.87 g, 16.6 mmol) was added dropwise over 2–3 min. The reaction mixture was stirred at 0°C for 1 h and then at ambient temperature for 20 h. The mixture was filtered, concentrated and the residue was partitioned between EtOAc (75 mL) and water (25 mL). The organic extract was dried (Na_2SO_4) and concentrated to afford **20** (4.80 g, quantitative) as a brown oil: ^1H NMR (300 MHz, $\text{DMSO}-d_6$) δ 4.39 (s, 2H), 3.43–3.42 (m, 4H), 3.35–3.30 (m, 4H), 1.41 (s, 9H).

Compound (**1a-20**), as set forth below in Reaction Scheme 1L, is a compound of

formula (Ia), as set forth above in the Summary of the Invention, and is prepared as illustrated below in Reaction Scheme 1L. The corresponding compound of formula (Ib) of this compound may be prepared in a similar manner.

REACTION SCHEME 1L

5 Preparation of 5-Amino-1-(3-methylphenyl)carbonyl-3-[3-(piperazin-4-ylcarbonylmethoxy)phenyl]amino-1H-1,2,4-triazole



Compound (Ia-19) was prepared by the method disclosed above in Reaction Scheme 1J.

10 In particular, the deprotection of 5-amino-1-(3-methylphenyl)carbonyl-3-[3-(N-tert-butoxycarbonyl)piperazin-4-ylcarbonylmethoxy)phenyl]amino-1H-1,2,4-triazole (Ia-19) was performed under standard acidic conditions, such as TFA and methylene chloride. The solvents were removed under reduced pressure and the residue was dissolved in CH₂Cl₂ (20 mL) and evaporated to dryness (3X). The crude solid was partitioned
15 between EtOAc (35 mL) and saturated NaHCO₃ (15 mL). The organic layer was separated, washed with brine (20 mL), dried, and concentrated to afford 5-amino-1-(3-methylphenyl)carbonyl-3-[3-(piperazin-4-ylcarbonylmethoxy)phenyl]amino-1H-1,2,4-triazole (Ia-20) (0.19 g, 93%) as a yellow solid: *R_f* 0.35 (9:1 methylene
20 chloride/methanol); mp 169–171 °C; ¹H NMR (300 MHz, DMSO-*d*₆) δ 9.32 (s, 1H), 8.04 (s, 1H), 7.95–7.92 (m, 1H), 7.82 (s, 2H), 7.46–7.43 (m, 2H), 7.24 (s, 1H), 7.12–7.03 (m, 2H), 6.42–6.39 (m, 1H), 4.65 (s, 2H), 3.37–3.29 (m, 5H), 2.64 (br s, 4H), 2.41 (s, 3H); ¹³C NMR (75 MHz, DMSO-*d*₆) δ 164.7, 163.7, 156.6, 156.2, 155.4, 140.1, 135.3, 131.2, 130.7, 129.0, 127.3, 125.9, 125.6, 108.0, 103.7, 101.9, 64.2, 43.8, 43.4, 40.5, 19.0; IR (ATR) 3427, 3127, 1680, 1647 cm⁻¹; APCI MS *m/z* 436 [C₂₂H₂₅N₇O₃ + H]⁺; HPLC
25 (Method 1) 97.8% (AUC), *t_R* = 8.65 min.

Compounds (Ia-21), (Ia-22), (Ia-23) and (Ia-24), as set forth below in Reaction Scheme 1M, are compounds of formula (Ia), as set forth above in the Summary of the Invention, and are prepared as illustrated below in Reaction Scheme 1M. For purposes of convenience, the minor products, *i.e.*, the corresponding compounds of formula (Ib),

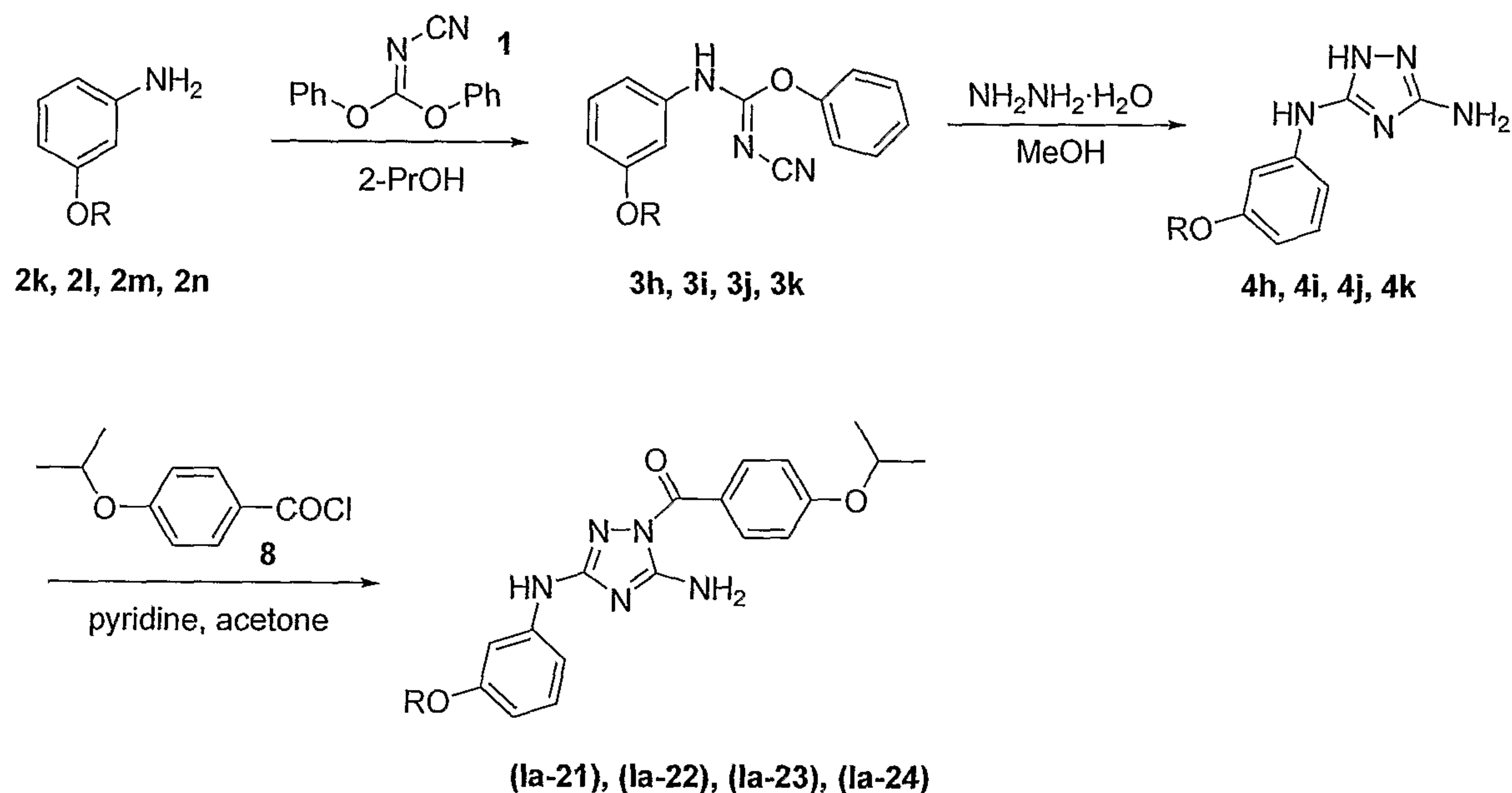
are not illustrated in Reaction Scheme 1M, but it is understood that these compounds are prepared as well by the method disclosed therein and can be isolated and separated from compounds (la-21), (la-22), (la-23) and (la-24) by standard isolation and separation techniques.

5

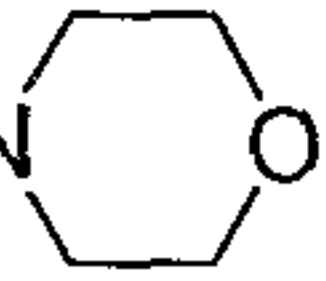
REACTION SCHEME 1M

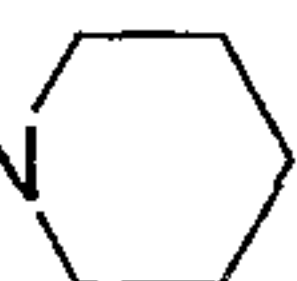
Preparation of 5-Amino-3-[3-(cyanomethoxy)phenylamino]-1-(4-(*iso*-propoxy)phenyl)carbonyl-1H-1,2,4-triazole, 5-Amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-3-[3-[2-(morpholin-4-yl)ethoxy]phenylamino]-1H-1,2,4-triazole, 5-Amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-3-[3-(piperidin-1-yl)phenylamino]-1H-1,2,4-triazole, and 5-Amino-3-[3-[2-(1,3-dioxolan-2-yl)ethoxy]phenylamino]-1-(4-(*iso*-propoxy)phenyl)carbonyl-1H-1,2,4-triazole

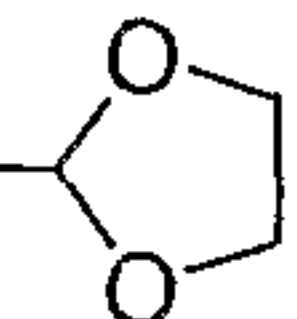
10



2k, 3h, 4h, (la-21): R is $-\text{CH}_2\text{CN}$

2l, 3i, 4i, (la-22): R is $-\text{CH}_2\text{CH}_2-\text{N}$ 

2m, 3j, 4j, (la-23): R is $-\text{CH}_2\text{CH}_2-\text{N}$ 

2n, 3k, 4k, (la-24): R is $-\text{CH}_2\text{CH}_2-$ 

In general, compounds (la-21), (la-22), (la-23) and (la-24) are prepared from compound 1 and compounds 2k, 2l, 2m and 2n, as set forth above in Reaction Scheme

1M. Compound **1** and compounds **2k**, **2l**, **2m** and **2n** are commercially available or can be prepared by the methods disclosed herein or by methods known to one skilled in the art. Compound **8** is commercially available or can be prepared by methods known to one skilled in the art.

Specifically, a mixture of (3-aminophenoxy)acetonitrile **2k** (1.0 g, 6.70 mmol) and diphenylcyanocarbimide **1** (1.64 g, 6.90 mmol) in 2-PrOH (20 mL) was stirred at ambient temperature under N₂ for 8 h. The solids that formed were collected by filtration and washed with 2-PrOH, to afford **3h** (1.76 g, 88%) as a white solid: ¹H NMR (300 MHz, DMSO-*d*₆) δ 10.94 (s, 1H), 7.50-7.37 (m, 3H), 7.34-7.27 (m, 3H), 7.23-7.17 (m, 2H), 6.99-6.95 (m, 1H), 5.18 (s, 2H).

A mixture of **3h** (1.76 g, 6.00 mmol) and hydrazine monohydrate (0.30 g, 6.00 mmol) in MeOH (30 mL) was stirred at ambient temperature for 20 h. The MeOH was removed under reduced pressure and the crude material was partitioned between EtOAc (75 mL) and water (75 mL). The aqueous layer was extracted with EtOAc (50 mL) and the combined organics were washed with brine (40 mL), dried (Na₂SO₄) and concentrated to give the crude product. Purification by trituration with CH₂Cl₂ afforded **4h** (1.28 g, 93%) as a white solid: ¹H NMR (300 MHz, DMSO-*d*₆) δ 11.18 (s, 1H), 8.75 (s, 1H), 7.37-7.32 (m, 1H), 7.13-7.11 (m, 2H), 6.45-6.41 (m, 1H), 5.89 (s, 2H), 5.06 (s, 2H).

To an ice-cold mixture of **4h** (0.50 g, 2.17 mmol) and pyridine (0.18 g, 2.28 mmol) in acetone (35 mL) under N₂ was added dropwise a solution of 4-isopropoxybenzoyl chloride **8** (0.45 g, 2.28 mmol) in acetone (5 mL) over 2 min and the resulting solution was stirred at ambient temperature for 20 h. The acetone was removed under reduced pressure and the residue was partitioned between EtOAc (100 mL) and water (100 mL). The aqueous layer was extracted with EtOAc (30 mL) and the combined organic extracts were washed with brine (50 mL), dried (Na₂SO₄), and concentrated to give the crude product. Purification by trituration with CH₃CN afforded 5-amino-3-[3-(cyanomethoxy)phenylamino]-1-(4-(*iso*-propoxy)phenyl)carbonyl-1H-1,2,4-triazole (**la-21**) (0.62 g, 71%) as a white solid: *R*_f 0.65 (9:1 CH₂Cl₂/MeOH); mp (DSC) 210.6-211.7 °C; ¹H NMR (300 MHz, DMSO-*d*₆) δ 9.45 (s, 1H), 8.25 (d, *J* = 8.9 Hz, 2H), 7.80 (s, 2H), 7.42-7.40 (m, 1H), 7.25-7.13 (m, 2H), 7.07 (d, *J* = 8.9 Hz, 2H), 6.59-6.55 (m, 1H), 5.08 (s, 2H), 4.83-4.75 (m, 1H), 1.33 (d, *J* = 6.0 Hz, 6H); ¹³C NMR (75 MHz, DMSO-*d*₆) δ 165.6, 161.0, 157.8, 157.3, 156.8, 142.3, 133.0, 129.5, 123.9, 116.5, 114.3, 111.0, 105.5, 103.5, 69.6, 53.3, 21.5; IR (ATR) 3421, 3357, 3103, 1676 cm⁻¹; APCI MS *m/z* 393 [C₂₀H₂₀N₆O₃ + H]⁺; HPLC (Method A) 98.8% (AUC), *t*_R = 13.99 min. Anal. Calcd for C₂₀H₂₀N₆O₃: C, 61.21; H, 5.14; N, 21.42. Found: C, 61.17; H, 4.88; N, 21.19.

Alternatively, a mixture of **2l** (1.68 g, 7.56 mmol) and diphenylcyanocarbimide **1** (1.80 g, 7.56 mmol) in 2-PrOH (20 mL) was stirred at ambient temperature under N₂ for 20 h. The solids that formed were collected by filtration and washed with 2-PrOH, to afford **3i** (2.04 g, 74%) as a yellow-white solid: ¹H NMR (300 MHz, DMSO-*d*₆) δ 10.82 (br s, 1H), 7.50-7.26 (m, 6H), 7.09-7.01 (m, 2H), 6.85-6.73 (m, 1H), 4.08 (t, *J* = 5.7 Hz, 2H), 3.58-3.55 (m, 4H), 2.70 (t, *J* = 5.7 Hz, 2H), 2.50-2.46 (m, 4H).

A mixture of **3i** (2.03 g, 5.50 mmol) and hydrazine monohydrate (0.28 g, 5.50 mmol) in MeOH (30 mL) was stirred at ambient temperature for 4 h. The MeOH was removed under reduced pressure and the residue was slurried in EtOAc and filtered to afford **4i** (1.35 g, 81%) as a white solid: ¹H NMR (300 MHz, DMSO-*d*₆) δ 11.13 (s, 1H), 8.58 (s, 1H), 7.24 (s, 1H), 7.05-6.85 (m, 2H), 6.30 (d, *J* = 7.5 Hz, 1H), 5.86 (s, 2H), 4.00 (t, *J* = 5.7 Hz, 2H), 3.70-3.47 (m, 4H), 2.67 (t, *J* = 5.7 Hz, 2H), 2.50-2.22 (m, 4H).

To an ice-cold mixture of **4i** (0.30 g, 0.98 mmol) and Et₃N (0.10 g, 1.00 mmol) in acetone (15 mL) under N₂ was added dropwise a solution of 4-isopropoxy benzoyl chloride **8** (0.20 g, 0.98 mmol) in acetone (5 mL) over 2 min and the resulting solution was stirred at ambient temperature for 20 h. The acetone was removed under reduced pressure and the residue was partitioned between EtOAc (50 mL) and water (50 mL). The aqueous layer was extracted with EtOAc (50 mL) and the combined organics were washed with brine (50 mL), dried (Na₂SO₄), and concentrated to give the crude product. Purification by flash chromatography (95:5 CH₂Cl₂/MeOH) afforded 5-amino-1-(4-(*iso*-propoxy)phenylcarbonyl)-3-[3-[2-(morpholin-4-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (**1a-22**) (0.23 g, 50%) as a white solid: *R*_f 0.50 (9:1 CH₂Cl₂/MeOH); mp (DSC) 152-153.7 °C; ¹H NMR (300 MHz, DMSO-*d*₆) δ 9.29 (s, 1H), 8.25 (d, *J* = 8.9 Hz, 2H), 7.77 (s, 2H), 7.42-7.41 (m, 1H), 7.13-7.05 (m, 3H), 6.92 (dd, *J* = 8.0, 1.0 Hz, 1H), 6.41 (dd, *J* = 7.9, 2.0 Hz, 1H), 4.82-4.74 (m, 1H), 3.99 (t, *J* = 5.5 Hz, 2H), 3.58-3.55 (m, 4H), 2.64 (t, *J* = 5.5 Hz, 2H), 2.45-2.42 (m, 4H), 1.32 (d, *J* = 6.0 Hz, 6H); ¹³C NMR (75 MHz, DMSO-*d*₆) δ 166.0, 161.4, 159.3, 158.3, 157.7, 142.4, 133.4, 129.6, 124.4, 114.8, 109.6, 106.5, 103.0, 69.9, 66.4, 65.4, 57.5, 54.0, 22.0; IR (ATR) 3664, 1692 cm⁻¹; APCI MS *m/z* 467 [C₂₄H₃₀N₆O₄ + H]⁺; HPLC (Method A) 98.0% (AUC), *t*_R = 9.54 min.

Alternatively, a mixture of **2m** (2.56 g, 11.6 mmol) and diphenylcyanocarbimide **1** (2.77 g, 11.6 mmol) in 2-PrOH (70 mL) was stirred at ambient temperature under N₂ for 20 h. The 2-PrOH was removed under reduced pressure and the residue was partitioned between EtOAc (75 mL) and water (75 mL). The aqueous layer was extracted with EtOAc (75 mL) and the combined organics were dried (Na₂SO₄), and concentrated to give the crude product. Purification by flash chromatography (CH₂Cl₂

then 95:5 CH₂Cl₂/MeOH) afforded **3j** (3.68 g, 87%) as a beige foam: ¹H NMR (300 MHz, DMSO-*d*₆) δ 10.36 (br s, 1H), 7.50-7.41 (m, 2H), 7.29-7.23 (m, 4H), 7.12-6.96 (m, 2H), 6.80-6.73 (m, 1H), 4.09-4.05 (m, 2H), 2.73-2.69 (m, 2H), 2.49-2.42 (m, 4H), 1.54-1.37 (m, 6H).

5 A mixture of **3j** (3.0 g, 8.20 mmol) and hydrazine monohydrate (0.41 g, 8.40 mmol) in MeOH (30 mL) was stirred at ambient temperature for 20 h. The MeOH was removed under reduced pressure and the residue was partitioned between EtOAc (75 mL) and water (75 mL). The aqueous layer was extracted with EtOAc (75 mL) and the organic layer concentrated to afford **4j** (2.00 g, 81%) as a beige foam: ¹H NMR (300
10 MHz, DMSO-*d*₆) δ 11.16 (s, 1H), 8.58 (s, 1H), 7.24 (s, 1H), 7.05-6.94 (m, 2H), 6.30-6.28 (m, 1H), 5.87 (s, 2H), 3.97 (t, *J* = 6.0 Hz, 2H), 2.62 (t, *J* = 6.0 Hz, 2H), 2.41-2.39 (m, 4H), 1.53-1.36 (m, 6H).

To an ice-cold mixture of **4j** (0.35 g, 1.16 mmol) and Et₃N (0.12 g, 1.18 mmol) in acetone (20 mL) under N₂ was added dropwise a solution of 4-isopropoxyl
15 benzoylchloride **8** (0.23 g, 1.16 mmol) in acetone (5 mL) over 2 min and the resulting solution was stirred at ambient temperature for 20 h. The acetone was removed under reduced pressure and the residue was partitioned between EtOAc (75 mL) and saturated aqueous NaHCO₃. The aqueous layer was separated, extracted with EtOAc (75 mL) and the combined organics were dried (Na₂SO₄) and concentrated to give the crude
20 product. Purification by flash chromatography (95:5 CH₂Cl₂/MeOH) afforded 5-amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-3-[3-(piperidin-1-yl)phenylamino]-1H-1,2,4-triazole (**la-23**) (0.19 g, 35%) as a yellow solid: *R*_f 0.25 (9:1 CH₂Cl₂/MeOH); mp 121-124 °C; ¹H NMR (300 MHz, DMSO-*d*₆) δ 9.29 (s, 1H), 8.25 (d, *J* = 8.8 Hz, 2H), 7.77 (s, 2H), 7.40 (s, 1H), 7.13-7.05 (m, 3H), 6.94-6.91 (m, 1H), 6.42-6.40 (m, 1H), 4.79-4.75 (m, 1H), 3.99 (br s,
25 2H), 2.63 (br s, 2H), 2.41 (br s, 4H), 1.50 (br s, 4H), 1.38-1.30 (m, 8H); ¹³C NMR (75 MHz, DMSO-*d*₆) δ 166.0, 161.4, 159.3, 158.3, 157.7, 142.4, 133.4, 129.6, 124.3, 114.8, 109.7, 106.5, 103.1, 69.9, 65.5, 57.6, 54.6, 25.6, 24.1, 22.0; IR (ATR) 3329, 1671 cm⁻¹; APCI MS *m/z* 465 [C₂₅H₃₂N₆O₃ + H]⁺; HPLC (Method A) 97.7% (AUC), *t*_R = 10.19 min.

Alternatively, a mixture of **2n** (4.46 g, 21.3 mmol) and diphenylcyanocarbimide
30 (5.07 g, 21.3 mmol) in 2-PrOH (100 mL) was stirred at ambient temperature under N₂ for 20 h. The solids that formed were collected by filtration and washed with 2-PrOH to afford **3k** (5.90 g, 78%) as an off-white solid: ¹H NMR (300 MHz, DMSO-*d*₆) δ 10.82 (s, 1H), 7.50-7.37 (m, 2H), 7.32-7.26 (m, 4H), 7.08-7.03 (m, 2H), 6.82 (dd, *J* = 7.9, 1.9 Hz, 1H), 4.98 (t, *J* = 4.9 Hz, 1H), 4.07 (t, *J* = 6.5 Hz, 2H), 3.93-3.76 (m, 4H), 2.06-2.00 (m,
35 2H).

A mixture of **3k** (3.0 g, 8.50 mmol) and hydrazine monohydrate (0.43 g, 8.67 mmol) in MeOH (40 mL) was stirred at ambient temperature for 20 h. The MeOH was removed under reduced pressure and the residue was partitioned between EtOAc (75 mL) and water (75 mL). The aqueous layer was extracted with EtOAc (75 mL) and the combined organics were washed with brine (50 mL), dried (Na₂SO₄), and concentrated. Purification by flash chromatography (CH₂Cl₂ to 95:5 CH₂Cl₂/MeOH) afforded **4k** (1.90 g, 65%) as a white solid: ¹H NMR (300 MHz, DMSO-*d*₆) δ 11.13 (s, 1H), 8.78 (s, 1H), 7.58 (s, 1H), 7.05-6.95 (m, 2H), 6.30-6.27 (m, 1H), 5.86 (s, 2H), 4.97 (t, *J* = 4.9 Hz, 1H), 3.99 (t, *J* = 6.5 Hz, 2H), 3.93-3.76 (m, 4H), 2.04-1.98 (m, 2H).

To an ice-cold mixture of **4k** (0.50 g, 1.70 mmol) and pyridine (0.16 g, 2.05 mmol) in acetone (35 mL) under N₂ was added dropwise a solution of 4-isopropoxybenzoyl chloride **8** (0.37 g, 1.87 mmol) in acetone (5 mL) over 2 min and the resulting solution was stirred at ambient temperature for 20 h. The acetone was removed under reduced pressure and the residue was partitioned between EtOAc (75 mL) and water (75 mL). The aqueous layer was extracted with EtOAc (75 mL) and the combined organics were washed with brine (40 mL), dried (Na₂SO₄), and concentrated to give the crude product. Purification by trituration with CH₃CN afforded 5-amino-3-[3-[2-(1,3-dioxolan-2-yl)ethoxy]phenylamino]-1-(4-(*iso*-propoxy)phenyl)carbonyl-1H-1,2,4-triazole (**la-24**) (0.51 g, 35%) as an off-white solid: *R*_f 0.61 (9:1 CH₂Cl₂/MeOH); mp (DSC) 144.4-145.4 °C; ¹H NMR (300 MHz, DMSO-*d*₆) δ 9.31 (s, 1H), 8.25 (d, *J* = 8.8 Hz, 2H), 7.78 (s, 2H), 7.40 (s, 1H), 7.14-7.03 (m, 3H), 6.95 (dd, *J* = 8.1, 1.0 Hz, 1H), 6.41 (dd, *J* = 7.9, 2.1 Hz, 1H), 4.97 (t, *J* = 5.1 Hz, 1H), 4.81-4.73 (m, 1H), 3.98 (t, *J* = 6.3 Hz, 2H), 3.93-3.76 (m, 4H), 2.02-1.96 (m, 2H), 1.32 (d, *J* = 6.0 Hz, 6H); ¹³C NMR (75 MHz, DMSO-*d*₆) δ 166.0, 161.4, 159.3, 158.3, 157.7, 142.5, 133.4, 129.6, 124.3, 114.8, 109.7, 106.5, 103.0, 101.5, 70.0, 64.6, 63.5, 33.8, 22.0; IR (ATR) 3417, 3355, 3115, 1678 cm⁻¹; APCI MS *m/z* 454 [C₂₃H₂₇N₅O₅ + H]⁺; HPLC (Method A) >99% (AUC), *t*_R = 14.59 min. Anal. Calcd for C₂₃H₂₇N₅O₅: C, 60.92; H, 6.00; N, 15.44. Found: C, 60.71; H, 5.89; N, 15.32.

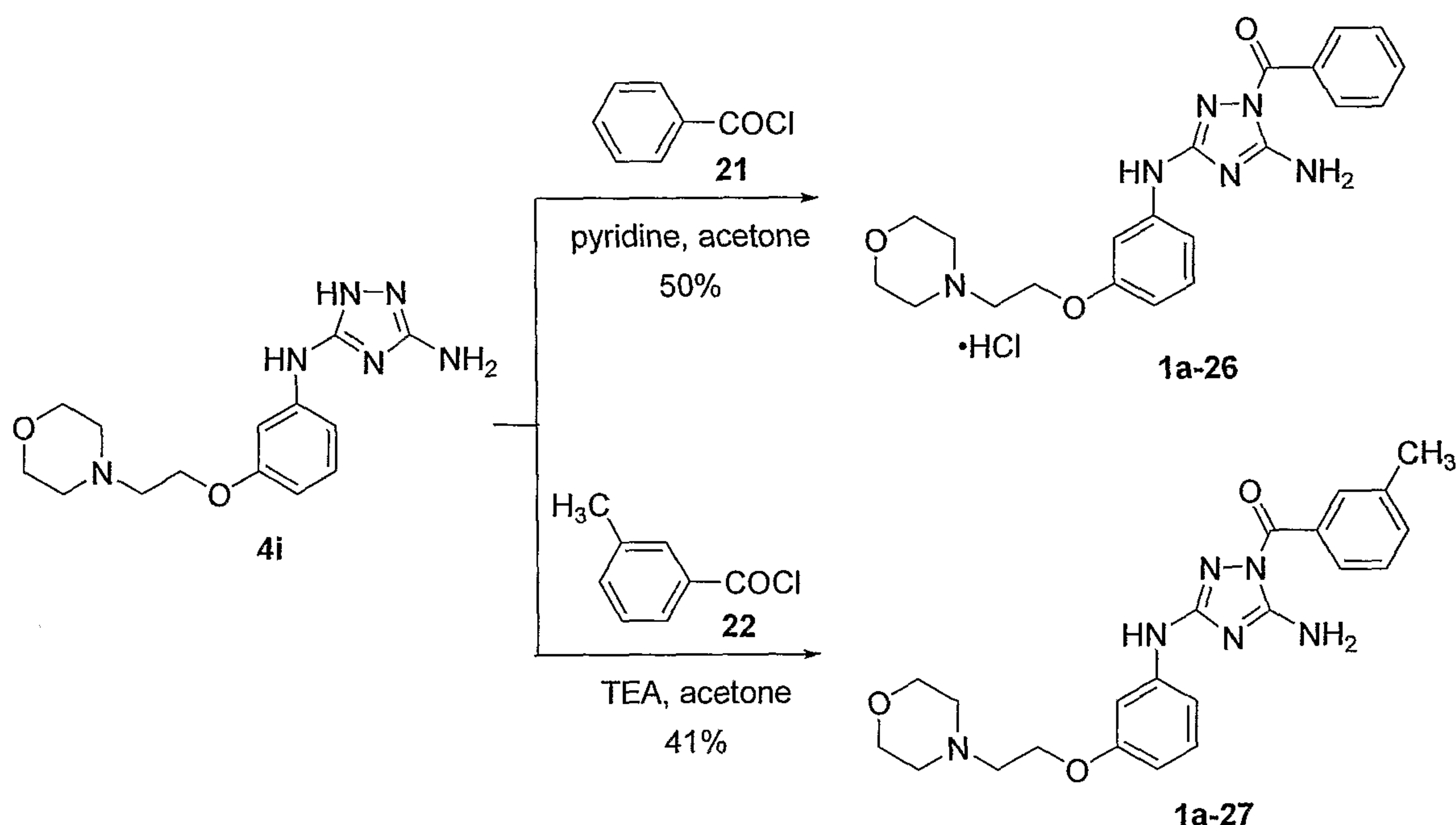
In a manner similar to that described above in the preparation of (**la-21**), (**la-22**), (**la-23**), and (**la-24**), a solution of 4-isopropoxybenzoyl chloride **8** (0.37 g, 1.86 mmol) in acetone (5 mL) was added dropwise over 2 min under N₂ to an ice-cold mixture of triazole **2i** (0.26 g, 0.92 mmol), prepared as described above in Reaction Scheme 1J, and pyridine (0.08 g, 0.92 mmol) in acetone (15 mL) and the resulting solution was stirred at ambient temperature for 40 h. The solids that formed were collected by filtration and triturated with acetone to afford 5-amino-3-[3-(benzyloxy)phenylamino]-1-(4-(*iso*-propoxy)phenyl)carbonyl-1H-1,2,4-triazole (**la-25**) (0.10 g, 24%) as a white solid: *R*_f

0.57 (9:1 CH₂Cl₂/MeOH); mp (DSC) 188.7-189.9 °C; ¹H NMR (300 MHz, DMSO-*d*₆) δ 9.35 (s, 1H), 8.27 (d, *J* = 8.8 Hz, 2H), 7.78 (s, 2H), 7.58 (s, 1H), 7.43-7.33 (m, 5H), 7.12 (t, *J* = 8.1 Hz, 1H), 6.99-6.91 (m, 3H), 6.50-6.47 (m, 1H), 4.98 (s, 2H), 4.52-4.42 (m, 1H), 1.19 (d, *J* = 6.0 Hz, 6H); ¹³C NMR (75 MHz, DMSO-*d*₆) δ 166.0, 161.4, 159.3, 158.3, 157.7, 142.5, 137.3, 133.4, 129.6, 128.7, 128.3, 128.1, 124.3, 114.8, 109.8, 106.9, 103.1, 69.8, 69.3, 21.9; IR (ATR) 3364, 1671 cm⁻¹; APCI MS *m/z* 444 [C₂₅H₂₅N₅O₃ + H]⁺; HPLC (Method A) >99% (AUC), *t*_R = 16.51 min. Anal. Calcd for C₂₅H₂₅N₅O₃: C, 66.70; H, 5.68; N, 15.79. Found: C, 67.42; H, 5.71; N, 15.63.

Compounds **(1a-26)** and **(1a-27)**, as set forth below in Reaction Scheme 1N, are compounds of formula (1a), as set forth above in the Summary of the Invention, and are prepared as illustrated below in Reaction Scheme 1N. For purposes of convenience, the minor products, *i.e.*, the corresponding compounds of formula (1b), are not illustrated in Reaction Scheme 1N, but it is understood that these compounds are prepared as well by the method disclosed therein and can be isolated and separated from compounds **(1a-26)** and **(1a-27)** by standard isolation and separation techniques.

REACTION SCHEME 1N

Preparation of 5-Amino-3-[3-[2-(morpholin-4-yl)ethoxy]phenylamino]-1-phenylcarbonyl-1H-1,2,4-triazole and 5-Amino-1-(3-(methyl)phenylcarbonyl)-3-[3-[2-(morpholin-4-yl)ethoxy]phenylamino]-1H-1,2,4-triazole



In general, compounds **(1a-26)** and **(1a-27)** are prepared from compounds **4i** and compounds **21** and **22**, respectively. Compound **4i** can be prepared by methods

described herein or by methods known to one skilled in the art. Compounds **21** and **22** are commercially available or can be prepared by methods known to one skilled in the art.

Specifically, to an ice-cold mixture of **4i** (0.30 g, 0.98 mmol) and pyridine (0.08 g, 1.00 mmol) in acetone (25 mL) under N₂ was added dropwise benzoyl chloride **21** (0.14 g, 0.98 mmol) over 2 min and the resulting solution was stirred at ambient temperature for 4 h. The acetone was removed under reduced pressure and the residue was partitioned between EtOAc (50 mL) and water (50 mL). The organic layer was washed with brine (50 mL), dried (Na₂SO₄), and concentrated to give the crude product which was triturated with EtOAc to afford 5-amino-3-[3-[2-(morpholin-4-yl)ethoxy]phenylamino]-1-phenylcarbonyl-1H-1,2,4-triazole, hydrogen chloride salt (**1a-26**) (0.23 g, 50%) as a yellow solid: *R_f* 0.54 (9:1 CH₂Cl₂/MeOH); mp (DSC) 236.6-242.1 °C; ¹H NMR (300 MHz, DMSO-*d*₆) δ 9.39 (s, 1H), 8.15-8.12 (m, 2H), 7.84 (s, 2H), 7.69-7.66 (m, 1H), 7.59 (t, *J* = 7.7 Hz, 2H), 7.32 (s, 1H), 7.13 (t, *J* = 8.1 Hz, 1H), 7.04-7.01 (m, 1H), 6.48 (dd, *J* = 7.7, 1.7 Hz, 1H), 4.29 (s, 2H), 3.96-3.79 (m, 4H), 3.48-3.38 (m, 5H), 3.21-3.16 (m, 2H); ¹³C NMR (75 MHz, DMSO-*d*₆) δ 164.9, 156.3, 156.2, 155.5, 140.4, 131.1, 130.7, 128.4, 127.6, 126.2, 108.3, 104.5, 101.1, 61.3, 60.2, 53.2, 49.9; IR (ATR) 3685, 3393, 1678 cm⁻¹; APCI MS *m/z* 409 [C₂₁H₂₄N₆O₃ + H]⁺; HPLC (Method A) 98.6% (AUC), *t_R* = 8.55 min. Anal. Calcd for C₂₁H₂₄N₆O₃·HCl: C, 56.69; H, 5.66; N, 18.89. Found: C, 56.51; H, 5.62; N, 18.68.

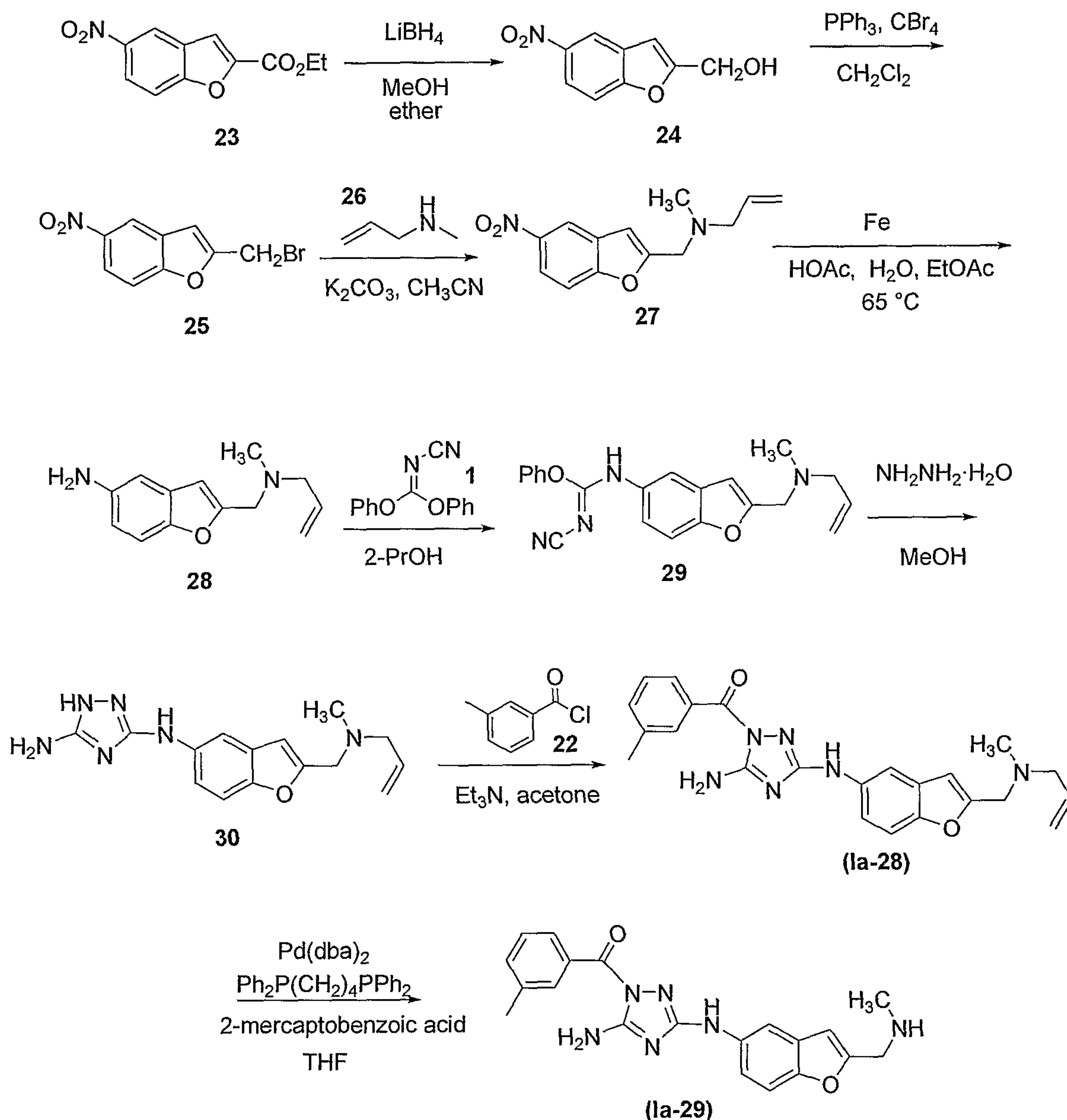
Alternatively, to an ice-cold mixture of **4i** (0.30 g, 0.98 mmol) and pyridine (0.08 g, 1.00 mmol) in acetone (15 mL) under N₂ was added dropwise *m*-toluoyl chloride **22** (0.15 g, 0.98 mmol) over 2 min and the resulting solution was stirred at ambient temperature for 4 h. The acetone was removed under reduced pressure and the residue was partitioned between EtOAc (50 mL) and water (50 mL). The organic layer was washed with brine (50 mL), dried (Na₂SO₄), and concentrated to give the crude product which was purified by flash chromatography (95:5 CH₂Cl₂/MeOH) followed by trituration with CH₂Cl₂ to afford 5-amino-1-(3-(methyl)phenylcarbonyl)-3-[3-[2-(morpholin-4-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (**1a-27**) (0.17 g, 41%) as a yellow solid: *R_f* 0.50 (9:1 CH₂Cl₂/MeOH); mp 60-63 °C; ¹H NMR (300 MHz, DMSO-*d*₆) δ 9.30 (s, 1H), 7.99-7.93 (m, 2H), 7.81 (s, 2H), 7.49-7.37 (m, 2H), 7.32 (s, 1H), 7.08 (t, *J* = 8.1 Hz, 1H), 6.96-6.93 (m, 1H), 6.41 (dd, *J* = 7.9, 1.7 Hz, 1H), 3.93 (t, *J* = 5.5 Hz, 2H), 3.57-3.54 (m, 4H), 2.62 (t, *J* = 5.5 Hz, 2H), 2.42 (s, 7H); ¹³C NMR (75 MHz, DMSO-*d*₆) δ 167.0, 159.3, 158.4, 157.6, 142.4, 137.5, 133.3, 133.0, 131.1, 129.5, 128.1, 127.7, 109.7, 106.3, 103.4, 66.5, 65.3, 57.4, 53.9, 21.2; IR (ATR) 3706, 3680, 3428, 3291, 1676 cm⁻¹; APCI

MS m/z 423 [$C_{22}H_{26}N_6O_3 + H$] $^+$; HPLC (Method A) 98.2% (AUC), $t_R = 8.96$ min.

Compounds **(1a-28)** and **(1a-29)**, as set forth below in Reaction Scheme 2, are compounds of formula (1a), as set forth above in the Summary of the Invention, and are prepared as illustrated below in Reaction Scheme 2. For purposes of convenience, the
5 minor products, *i.e.*, the corresponding compounds of formula (1b), are not illustrated in Reaction Scheme 2, but it is understood that these compounds are prepared as well by the method disclosed therein and can be isolated and separated from compounds **(1a-28)** and **(1a-29)** by standard isolation and separation techniques.

REACTION SCHEME 2

Preparation of 5-Amino-3-(2-((allyl(methyl)amino)methyl)benzofuran-5-yl)amino-1-(3-methylphenyl)carbonyl-1H-1,2,4-triazole and 5-Amino-3-(2-((methylamino)methyl)benzofuran-5-yl)amino-1-(3-methylphenyl)carbonyl-1H-1,2,4-triazole



In general, compounds **(Ia-28)** and **(Ia-29)** are prepared from compounds **23**, **26**, **1** and **22**, as described above in Reaction Scheme 2. Compounds **23**, **26**, **1** and **22** are commercially available or can be prepared by methods known to one skilled in the art.

Specifically, a mixture of **23** (4.0 g, 17.0 mmol), MeOH (0.82 g, 25.5 mmol) and lithium borohydride (0.56 g, 25.5 mmol) in ether (80 mL) was stirred at ambient

temperature for 4 h. The mixture was diluted with ethyl acetate and washed with 1 N HCl and brine, dried (MgSO₄), and concentrated to afford **24** (3.08 g, 87%) as a yellow solid: ¹H NMR (300 MHz, DMSO-*d*₆) δ 8.59 (d, *J* = 2.4 Hz, 1H), 8.19 (dd, *J* = 9.0, 2.5 Hz, 1H), 7.80 (d, *J* = 9.0 Hz, 1H), 7.00 (s, 1H), 5.65 (t, *J* = 5.9 Hz, 1H), 4.63 (d, *J* = 5.6 Hz, 2H).

A mixture of **24** (3.85 g, 19.9 mmol), carbon tetrabromide (9.25 g, 27.9 mmol) and triphenylphosphine (7.32 g, 27.9 mmol) in CH₂Cl₂ was stirred at ambient temperature for 1.5 h. The reaction mixture was concentrated to afford a residue which was purified by flash chromatography (silica, 1:10 ethyl acetate/hexanes) to afford **25** (4.24 g, 83%) as a white solid: ¹H NMR (300 MHz, DMSO-*d*₆) δ 8.64 (d, *J* = 2.4 Hz, 1H), 8.25 (dd, *J* = 9.1, 2.5 Hz, 1H), 7.85 (d, *J* = 9.1 Hz, 1H), 7.26 (s, 1H), 4.97 (s, 2H).

To a stirred ice cold mixture of *N*-methylallylamine **26** (2.09 g, 29.4 mmol) and potassium carbonate (2.43 g, 17.6 mmol) in acetonitrile (37 mL) was added dropwise a solution of **25** (3.76 g, 14.7 mmol) in acetonitrile (37 mL) over a period of 30 min. After stirring for 1.5 h in an ice-bath and an additional 22 h at ambient temperature, the reaction mixture was partitioned between methylene chloride and water. The organic layer was separated washed with brine, dried (MgSO₄), and concentrated to afford **27** (3.11 g, 86%) as a yellow oil: ¹H NMR (300 MHz, DMSO-*d*₆) δ 8.58 (d, *J* = 2.3 Hz, 1H), 8.18 (dd, *J* = 9.0, 2.4 Hz, 1H), 7.81 (d, *J* = 9.0 Hz, 1H), 7.02 (s, 1H), 5.90–5.80 (m, 1H), 5.30–5.10 (m, 2H), 3.74 (s, 2H), 3.08 (d, *J* = 6.3 Hz, 2H), 2.21 (s, 3H).

To a solution of **27** (1.81 g, 7.35 mmol) in 10:1 HOAc/water (22 mL) at 55 °C was added iron powder (2.46 g, 44.1 mmol) portionwise over 5 min and the mixture stirred at 55 °C for 3 h. The reaction mixture was diluted with ethyl acetate (100 mL), filtered through diatomaceous earth and the filtrate concentrated. The residue was taken up into ethyl acetate, the ethyl acetate solution washed with water, brine, dried (MgSO₄), and concentrated to afford **28** (0.56 g, 35%) as an amber oil: ESI MS *m/z* 217 [C₁₃H₁₆N₂O + H]⁺.

A mixture of **28** (0.66 g, 3.05 mmol) and diphenylcyanocarbimide **1** (0.73 g, 3.05 mmol) in 2-PrOH (7 mL) was stirred at ambient temperature under N₂ for 22 h. The solids that formed were collected by filtration and washed with 2-PrOH to afford **29** (0.59 g, 54%) as a tan solid: ¹H NMR (300 MHz, DMSO-*d*₆) δ 10.83 (br s, 1H), 7.70–7.20 (m, 8H), 6.81 (s, 1H), 5.90–5.80 (m, 1H), 5.30–5.10 (m, 2H), 3.68 (s, 1H), 3.06 (d, *J* = 6.3 Hz, 2H), 2.19 (s, 3H).

A mixture of **29** (0.59 g, 1.64 mmol) and hydrazine monohydrate (0.12 g, 2.45 mmol) in MeOH (6 mL) was stirred at ambient temperature for 20 h. The reaction

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mixture was concentrated and the residue obtained was purified by flash chromatography (silica, 9:1 methylene chloride/methanol) to afford **30** (0.40 g, 82%) as an off-white foam: ^1H NMR (300 MHz, $\text{DMSO}-d_6$) δ 11.06 (br s, 1H), 8.51 (br s, 1H), 7.83 (d, $J = 1.2$ Hz, 1H), 7.35–7.20 (m, 2H), 6.62 (s, 1H), 6.0–5.57 (m, 3H), 5.30–5.10 (m, 2H), 3.61 (s, 2H), 3.04 (d, $J = 6.4$ Hz, 2H), 2.18 (s, 3H).

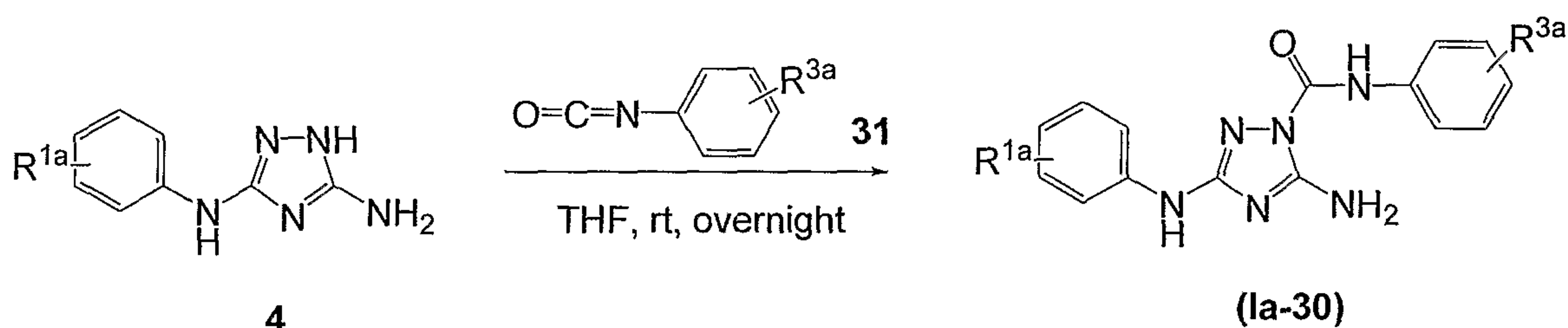
To a stirred, ice-cold mixture of **30** (0.40 g, 1.34 mmol) and triethylamine (0.14 g, 1.34 mmol) in acetone (8 mL) was added *m*-toluoyl chloride **22** (0.21 g, 1.34 mmol). After stirring for 1 h in an ice-bath and an additional 20 h at ambient temperature, the reaction mixture was partitioned between saturated Na_2CO_3 (40 mL) and ethyl acetate (40 mL). The organic layer was separated, washed with brine, dried (MgSO_4), and concentrated to afford a yellow oil. Purification by flash chromatography (silica, 1:1 ethyl acetate/hexanes then 2:1 ethyl acetate/hexanes) gave 5-amino-3-(2-((allyl(methyl)amino)methyl)benzofuran-5-yl)amino-1-(3-methylphenyl)carbonyl-1H-1,2,4-triazole (**1a-28**) (0.192 g, 34%) as a yellow solid: R_f 0.36 (95:5 methylene chloride/methanol); mp 128–131 °C; ^1H NMR (300 MHz, $\text{DMSO}-d_6$) δ 9.27 (s, 1H), 8.12 (s, 1H), 7.97 (d, $J = 5.8$ Hz, 1H), 7.86–7.80 (m, 3H), 7.50–7.30 (m, 4H), 6.58 (s, 1H), 5.90–5.81 (m, 1H), 5.24–5.14 (m, 2H), 3.64 (s, 2H), 3.04 (d, $J = 6.2$ Hz, 2H), 2.45 (s, 3H), 2.18 (s, 3H); ^{13}C NMR (75 MHz, $\text{DMSO}-d_6$) δ 166.6, 158.6, 157.5, 156.2, 149.3, 137.2, 136.8, 135.9, 133.3, 132.8, 131.2, 128.3, 128.0, 127.6, 117.7, 114.6, 110.8, 107.8, 105.3, 59.6, 53.2, 41.6, 21.1; IR (ATR) 1672, 1584, 1558 cm^{-1} ; ESI MS m/z 417 [$\text{C}_{23}\text{H}_{24}\text{N}_6\text{O}_2 + \text{H}$] $^+$; HPLC (Method 2) 96.9% (AUC), $t_R = 9.59$ min.

A mixture of bis(dibenzylideneacetone)palladium(0) (0.0061 g, 0.011 mmol) and 1,4-bis(diphenylphosphino)butane (0.0045 g, 0.011 mmol) in THF (2 mL) was stirred at ambient temperature for 15 minutes, then added to a stirred solution of (**1a-28**) (0.088 g, 0.211 mmol) and thiosalicyclic acid (0.036 g, 0.232 mmol) in THF (4 mL). After stirring for 30 h at ambient temperature, additional bis(dibenzylideneacetone)palladium (0.012 g, 0.022 mmol) and 1,4-bis(diphenylphosphino)butane (0.009 g, 0.022 mmol) in THF (2 mL) was added. The reaction was stirred an additional 20 h at ambient temperature, then diluted with ethyl acetate. The organic solution was washed with 1 N NaOH, and brine, dried (MgSO_4), and concentrated to afford a yellow-orange residue. Purification by flash chromatography (silica, 95:5 methylene chloride/methanol) followed by preparative TLC (silica, 9:1 methylene chloride/methanol) gave 5-amino-3-(2-((methylamino)methyl)benzofuran-5-yl)amino-1-(3-methylphenyl)carbonyl-1H-1,2,4-triazole (**1a-29**) (0.019 g, 19%) as a pale yellow solid: R_f 0.35 (9:1 methylene chloride/methanol); mp 128–131 °C; ^1H NMR (300 MHz, $\text{DMSO}-d_6$) δ 9.26 (s, 1H), 8.11

(s, 1H), 7.96 (d, $J = 6.3$ Hz, 1H), 7.85 (d, $J = 2.0$ Hz, 1H), 7.80 (br s, 2H), 7.50–7.48 (m, 2H), 7.37–7.47 (m, 2H), 6.53 (s, 1H), 3.74 (s, 2H), 2.46 (s, 3H), 2.30 (s, 3H); IR (ATR) 1675, 1561, 1350 cm^{-1} ; ESI MS m/z 377 [$\text{C}_{20}\text{H}_{20}\text{N}_6\text{O}_2 + \text{H}]^+$; HPLC (Method 2) 90.4% (AUC), $t_R = 8.79$ min.

5 Compounds **(Ia-30)**, as set forth below in Reaction Scheme 3, are compounds of formula (Ia), as set forth above in the Summary of the Invention, and are prepared as illustrated below in Reaction Scheme 3 wherein R^{1a} is one or more substituents selected from the group consisting of halo, haloalkyl, alkyl, optionally substituted heteroaryl, optionally substituted heterocyclyl, $-\text{R}^8-\text{OR}^{10}$, $-\text{R}^8-\text{O}-\text{R}^9-\text{OR}^{10}$, $-\text{R}^8-\text{O}-\text{R}^9-\text{O}-\text{R}^9-\text{OR}^{10}$,
 10 $-\text{R}^8-\text{O}-\text{R}^9-\text{CN}$, $-\text{R}^8-\text{O}-\text{R}^9-\text{C}(\text{O})\text{OR}^{10}$, $-\text{R}^8-\text{O}-\text{R}^9-\text{C}(\text{O})\text{N}(\text{R}^6)\text{R}^7$, $-\text{R}^8-\text{O}-\text{R}^9-\text{S}(\text{O})_p\text{R}^6$ (where p is 0, 1 or 2), $-\text{R}^8-\text{O}-\text{R}^9-\text{N}(\text{R}^6)\text{R}^7$, $-\text{R}^8-\text{O}-\text{R}^9-\text{C}(\text{NR}^{11})\text{N}(\text{R}^{11})\text{H}$, and $-\text{R}^8-\text{N}(\text{R}^6)\text{C}(\text{O})\text{R}^{10}$, wherein each R^6 , R^7 , R^8 , R^9 , R^{10} and R^{11} are as defined above in the Summary of the Invention and R^{3a} is one or more substituents selected from the group consisting of halo, haloalkyl, alkyl, optionally substituted heteroaryl, optionally substituted heterocyclyl, $-\text{R}^8-\text{OR}^{10}$,
 15 $-\text{R}^8-\text{O}-\text{R}^9-\text{OR}^{10}$, $-\text{R}^8-\text{O}-\text{R}^9-\text{O}-\text{R}^9-\text{OR}^{10}$, $-\text{R}^8-\text{O}-\text{R}^9-\text{CN}$, $-\text{R}^8-\text{O}-\text{R}^9-\text{C}(\text{O})\text{OR}^{10}$, $-\text{R}^8-\text{O}-\text{R}^9-\text{C}(\text{O})\text{N}(\text{R}^6)\text{R}^7$, $-\text{R}^8-\text{O}-\text{R}^9-\text{S}(\text{O})_p\text{R}^6$ (where p is 0, 1 or 2), $-\text{R}^8-\text{O}-\text{R}^9-\text{N}(\text{R}^6)\text{R}^7$, $-\text{R}^8-\text{O}-\text{R}^9-\text{C}(\text{NR}^{11})\text{N}(\text{R}^{11})\text{H}$, and $-\text{R}^8-\text{N}(\text{R}^6)\text{C}(\text{O})\text{R}^{10}$ where each R^6 , R^7 , R^8 , R^9 , R^{10} and R^{11} is as defined above in the Summary of the Invention. For purposes of convenience, the minor products, *i.e.*, the corresponding compounds of formula (Ib), are not illustrated in
 20 Reaction Scheme 3, but it is understood that these compounds are prepared as well by the method disclosed therein and can be isolated and separated from compounds **(Ia-30)** by standard isolation and separation techniques.

REACTION SCHEME 3



25 In general, compounds **(Ia-30)** are prepared from compounds **4** and **31** as set forth above in Reaction Scheme 3. Compounds **4** can be prepared by methods disclosed herein or by methods known to one skilled in the art. Compounds **31** are commercially available or can be prepared by methods known to one skilled in the art.

Specifically, a mixture of 3-amino-5-anilino-1,2,4-triazole **4** (1 equiv) and
 30 isocyanate **31** (1.5 equiv) in dry THF was stirred at ambient temperature overnight. The

reaction was then quenched with methanol and concentrated *in vacuo*. The residue was purified by silica gel column chromatography in 5% triethylamine/ethyl acetate gave the product (1a-30).

The method disclosed above in Reaction Scheme 3 can be used to prepare the following compounds, using the appropriately substituted starting materials:

5-amino-N-(3-methylphenyl)-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole-1-carboxamide (compound #29), as a white solid (33% yield); ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.33 (s, 1H), 8.92 (s, 1H), 7.55 (d, *J* = 9.0 Hz, 2H), 7.46 (s, 1H), 7.42 (d, *J* = 7.8 Hz, 1H), 7.29 (s, 2H), 7.23 (t, *J* = 7.8 Hz, 1H), 6.94 (d, *J* = 7.5 Hz, 1H), 6.81 (d, *J* = 9.0 Hz, 2H), 3.98 (t, *J* = 6.0 Hz, 2H), 2.60 (t, *J* = 6.0 Hz, 2H), 2.41 (m, 4H), 2.31 (s, 3H), 1.47 (m, 4H), 1.37 (m, 2H) ppm; MS (ES) 436.8 (M+H);

5-amino-N-(3-methoxyphenyl)-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole-1-carboxamide (compound #30), ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.37 (s, 1H), 8.92 (s, 1H), 7.55 (d, *J* = 9.0 Hz, 2H), 7.27 (m, 5H), 6.81 (d, *J* = 8.4 Hz, 2H), 6.71 (m, 1H), 3.98 (t, *J* = 6.0 Hz, 2H), 3.75 (s, 3H), 2.60 (t, *J* = 6.0 Hz, 2H), 2.41 (m, 4H), 1.48 (m, 4H), 1.37 (m, 2H) ppm; MS (ES) 452.8 (M+H);

5-amino-N-(3-methylphenyl)-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole-1-carboxamide (compound #31), ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.32 (s, 1H), 8.91 (s, 1H), 7.56 (d, *J* = 9.0 Hz, 2H), 7.46 (s, 1H), 7.42 (d, *J* = 7.5 Hz, 1H), 7.28 (s, 2H), 7.23 (t, *J* = 7.8 Hz, 1H), 6.94 (d, *J* = 7.5 Hz, 1H), 6.82 (d, *J* = 8.7 Hz, 2H), 3.99 (t, *J* = 6.0 Hz, 2H), 2.78 (m, 2H), 2.55 (m, 4H), 2.31 (s, 3H), 1.68 (m, 4H) ppm; MS (ES) 422.2 (M+H);

5-amino-N-(3-methoxyphenyl)-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole-1-carboxamide (compound #32); ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.37 (s, 1H), 8.92 (s, 1H), 7.55 (d, *J* = 9.0 Hz, 2H), 7.30 (s, 2H), 7.24 (d, *J* = 6.3 Hz, 1H), 7.23 (s, 1H), 6.81 (d, *J* = 9.3 Hz, 2H), 6.70 (d, *J* = 6.3 Hz, 1H), 3.98 (t, *J* = 6.0 Hz, 2H), 3.75 (s, 3H), 2.74 (t, *J* = 6.0 Hz, 2H), 2.48 (m, 4H), 1.67 (m, 4H) ppm; MS (ES) 438.1 (M+H);

5-amino-N-(3,5-(dimethoxy)phenyl)-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole-1-carboxamide (compound #33), ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.31 (s, 1H), 8.92 (s, 1H), 7.54 (d, *J* = 8.7 Hz, 2H), 7.31 (s, 2H), 6.93 (s, 2H), 6.81 (d, *J* = 8.4 Hz, 2H), 6.28 (s, 1H), 3.99 (t, *J* = 6.0 Hz, 2H), 3.73 (s, 6H), 2.60 (t, *J* = 6.0 Hz, 2H), 2.42 (m, 4H), 1.48 (m, 4H), 1.37 (m, 2H) ppm; MS (ES) 482.8 (M+H);

5-amino-N-(3,5-(dimethoxy)phenyl)-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole-1-carboxamide (compound #34), ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.31 (s, 1H), 8.93 (s, 1H), 7.54 (d, *J* = 8.7 Hz, 2H), 7.31 (s, 2H), 6.94 (s, 1H), 6.93 (s, 1H),

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6.81 (d, $J = 9.0$ Hz, 2H), 6.28 (t, $J = 2.4$ Hz, 1H), 3.98 (t, $J = 6.0$ Hz, 2H), 3.73 (s, 6H), 2.75 (t, $J = 6.0$ Hz, 2H), 2.42 (m, 4H), 1.67 (m, 4H) ppm; MS (ES) 468.3 (M+H);

5-amino-N-(1,3-benzodioxol-5-yl)-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole-1-carboxamide (compound #35), $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 9.34 (s, 1H), 8.90 (s, 1H), 7.55 (d, $J = 9.0$ Hz, 2H), 7.26 (s, 2H), 7.24 (d, $J = 2.4$ Hz, 1H), 7.04 (dd, $J = 8.1, 2.1$ Hz, 1H), 6.89 (d, $J = 8.4$ Hz, 1H), 6.80 (d, $J = 9.0$ Hz, 2H), 6.00 (s, 2H), 3.97 (t, $J = 6.0$ Hz, 2H), 2.61 (t, $J = 6.0$ Hz, 2H), 2.41 (m, 4H), 1.48 (m, 4H), 1.37 (m, 2H) ppm; MS (ES) 466.1 (M+H).

5-amino-N-(1,3-benzodioxol-5-yl)-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole-1-carboxamide (compound #36), $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 9.34 (s, 1H), 8.91 (s, 1H), 8.14 (s, 1H), 7.55 (d, $J = 8.7$ Hz, 2H), 7.24 (s, 2H), 7.03 (d, $J = 8.4$ Hz, 1H), 6.89 (d, $J = 8.4$ Hz, 1H), 6.80 (d, $J = 8.7$ Hz, 2H), 6.01 (s, 2H), 3.99 (t, $J = 6.0$ Hz, 2H), 2.81 (t, $J = 6.0$ Hz, 2H), 2.57 (m, 4H), 1.69 (m, 4H) ppm; MS (ES) 452.2 (M+H);

5-amino-N-(4-methylphenyl)-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole-1-carboxamide (compound #37), $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 9.34 (s, 1H), 8.91 (s, 1H), 7.56 (d, $J = 8.4$ Hz, 2H), 7.49 (d, $J = 8.4$ Hz, 1H), 7.27 (s, 2H), 7.15 (d, $J = 8.4$ Hz, 1H), 6.81 (d, $J = 8.7$ Hz, 2H), 3.99 (t, $J = 5.4$ Hz, 2H), 2.77 (t, $J = 5.4$ Hz, 2H), 2.49 (m, 4H), 2.28 (s, 3H), 1.68 (m, 4H) ppm; MS (ES) 422.2 (M+H);

5-amino-N-(3,4-(dimethyl)phenyl)-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole-1-carboxamide (compound #38), $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 9.26 (s, 1H), 8.91 (s, 1H), 7.55 (d, $J = 9.0$ Hz, 2H), 7.41 (s, 1H), 7.34 (d, $J = 8.4$ Hz, 1H), 7.27 (s, 2H), 7.10 (d, $J = 8.1$ Hz, 1H), 6.81 (d, $J = 9.0$ Hz, 2H), 3.98 (t, $J = 6.0$ Hz, 2H), 2.61 (t, $J = 6.0$ Hz, 2H), 2.41 (m, 4H), 2.22 (s, 3H), 2.20 (s, 3H), 1.49 (m, 4H), 1.37 (s, 2H) ppm; MS (ES) 452.2 (M+H);

5-amino-N-(4-methylphenyl)-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole-1-carboxamide (compound #39), $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 9.34 (s, 1H), 8.91 (s, 1H), 7.55 (d, $J = 9.0$ Hz, 2H), 7.49 (d, $J = 8.4$ Hz, 2H), 7.27 (s, 2H), 7.15 (d, $J = 8.4$ Hz, 2H), 6.81 (d, $J = 9.0$ Hz, 2H), 3.98 (t, $J = 6.0$ Hz, 2H), 2.61 (t, $J = 6.0$ Hz, 2H), 2.42 (m, 4H), 2.28 (s, 3H), 1.49 (m, 4H) 1.38 (m, 2H) ppm; MS (ES) 452.2 (M+H);

5-amino-N-(4-(methoxy)phenyl)-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole-1-carboxamide (compound #40), $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 9.34 (s, 1H), 8.90 (s, 1H), 7.56 (d, $J = 9.0$ Hz, 2H), 7.49 (d, $J = 8.4$ Hz, 2H), 7.25 (s, 2H), 6.92 (d, $J = 8.7$ Hz, 2H), 6.80 (d, $J = 9.0$ Hz, 2H), 3.98 (t, $J = 5.4$ Hz, 2H), 3.74 (s, 3H) 2.61 (m, 2H), 2.42 (m, 4H), 1.49 (m, 4H), 1.36 (m, 2H) ppm; MS (ES) 452.8 (M+H);

5-amino-N-(4-(iso-propyl)phenyl)-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-

1,2,4-triazole-1-carboxamide (compound #41), ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.35 (s, 1H), 8.91 (s, 1H), 7.55 (d, *J* = 9.0 Hz, 2H), 7.52 (d, *J* = 9.0 Hz, 2H), 7.28 (s, 2H), 7.22 (d, *J* = 8.1 Hz, 2H), 6.81 (d, *J* = 7.8 Hz, 2H), 3.98 (t, *J* = 6.0 Hz, 2H), 2.61 (t, *J* = 6.0 Hz, 2H), 2.56 (m, 1H), 2.41 (m, 4H), 1.49 (m, 4H), 1.37 (m, 2H), 1.20 (d, *J* = 6.3 Hz, 6H) ppm; MS (ES) 464.9 (M+H);

5-amino-N-cyclohexyl-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole-1-carboxamide (compound #42), ¹H-NMR (DMSO-*d*₆, 300 MHz) 8.81 (s, 1H), 7.45 (d, *J* = 9.0 Hz, 2H), 7.21 (d, *J* = 7.8 Hz, 1H), 7.15 (s, 2H), 6.79 (d, *J* = 9.3 Hz, 2H), 3.97 (m, 2H), 3.56 (m, 1H), 2.60 (m, 2H), 2.42 (m, 4H), 1.47 (m, 16H) ppm; MS (ES) 428.7 (M+H);

5-amino-N-(3,4-(dimethoxy)phenyl)-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole-1-carboxamide (compound #43), ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.30 (s, 1H), 8.90 (s, 1H), 7.56 (d, *J* = 8.7 Hz, 2H), 7.285 (d, *J* = 2.1 Hz, 1H), 7.278 (s, 2H), 7.14 (dd, *J* = 8.4, 2.1 Hz, 1H), 6.92 (d, *J* = 9.0 Hz, 1H), 6.81 (d, *J* = 9.0 Hz, 2H), 3.98 (t, *J* = 5.7 Hz, 2H), 3.75 (s, 3H), 3.74 (s, 3H), 2.60 (t, *J* = 5.7 Hz, 2H), 2.43 (m, 4H), 1.49 (m, 4H), 1.37 (s, 2H) ppm; MS (ES) 482.2 (M+H);

5-amino-N-(4-(dimethylamino)phenyl)-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole-1-carboxamide (compound #44), ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.17 (s, 1H), 8.89 (s, 1H), 7.56 (d, *J* = 8.7 Hz, 2H), 7.36 (d, *J* = 8.7 Hz, 2H), 7.22 (s, 2H), 6.81 (d, *J* = 8.7 Hz, 2H), 6.70 (d, *J* = 8.7 Hz, 2H), 4.01 (t, *J* = 6.6 Hz, 2H), 2.86 (s, 3H), 2.80 (s, 3H), 2.48 (m, 2H), 1.97 (m, 4H), 1.50-1.14 (m, 6H) ppm; MS (ES) 465.2 (M+H), 463.3 (M-H);

5-amino-N-cyclopentyl-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole-1-carboxamide (compound #45), ¹H-NMR (DMSO-*d*₆, 300 MHz) 8.79 (s, 1H), 7.45 (d, *J* = 8.7 Hz, 2H), 7.28 (d, *J* = 7.8 Hz, 1H), 7.15 (s, 2H), 6.79 (d, *J* = 9.0 Hz, 2H), 3.97 (m, 3H), 2.60 (m, 2H), 2.41 (m, 4H), 1.89-1.38 (m, 14H) ppm; MS (ES) 414.2 (M+H); and

5-amino-N-(4-butoxyphenyl)-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole-1-carboxamide (compound #46), ¹H-NMR (CDCl₃, 300 MHz) 8.37 (s, 1H), 7.39 (d, *J* = 8.7 Hz, 2H), 7.32 (d, *J* = 8.7 Hz, 2H), 6.90 (d, *J* = 8.7 Hz, 2H), 6.88 (d, *J* = 8.7 Hz, 2H), 6.57 (s, 1H), 6.23 (s, 2H), 4.09 (t, *J* = 6.0 Hz, 2H), 3.96 (t, *J* = 6.3 Hz, 2H), 2.77 (t, *J* = 6.0 Hz, 2H), 2.50 (m, 4H), 1.80-1.26 (m, 12H), 0.99 (t, *J* = 7.2 Hz, 3H) ppm; MS (ES) 494.8 (M+H).

* * * * *

In addition to the preparation of the compounds of the invention as disclosed

above, the following compounds of the invention were prepared by methods similar to those disclosed herein utilizing appropriately substituted starting materials and reagents. The number following each compound below refers to its number in Tables 1-10, as discussed in more detail below.

5 3-amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-5-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #47);

 5-amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-3-(4-(morpholin-4-yl)phenylamino)-1H-1,2,4-triazole (compound #48), yellow solid. ¹H-NMR (DMSO-*d*₆, 300 MHz) 8.97 (s, 1H), 8.23 (d, *J* = 8.1 Hz, 2H), 7.69 (br. s, 2H), 7.40 (d, *J* = 8.4 Hz, 2H), 7.05 (d, *J* = 8.4 Hz, 2H), 6.84 (d, *J* = 9.0 Hz, 2H), 4.77 (quint., *J* = 6.3 Hz, 1H), 3.70 (t, *J* = 4.35 Hz, 4H), 2.98 (t, *J* = 4.65 Hz, 4H), 1.31 (d, *J* = 5.7 Hz, 6H) ppm; MS (ES) 423.10 (M+H), 421.20 (M-H);

 3-amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-5-(4-(morpholin-4-yl)phenylamino)-1H-1,2,4-triazole (compound #49);

15 5-amino-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1-(4-(*tert*-butoxy)phenyl)carbonyl-1H-1,2,4-triazole (compound #50), yellow solid, ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.02 (s, 1H), 8.19 (d, *J* = 9.0 Hz, 2H), 7.72 (br. s, 2H), 7.40 (d, *J* = 7.5 Hz, 2H), 7.12 (d, *J* = 8.7 Hz, 2H), 6.80 (d, *J* = 8.1 Hz, 2H), 3.96 (t, *J* = 5.7 Hz, 2H), 2.59 (t, *J* = 5.7 Hz, 2H), 2.39 (m, 4H), 1.47 (m, 4H), 1.41 (s, 9H), 1.37-1.34 (m, 2H) ppm; MS (ES) 479.92 (M+H), 477.58 (M-H);

 5-amino-1-(4-(*iso*-propyl)phenyl)carbonyl-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #51), yellow solid, ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.03 (s, 1H), 8.12 (d, *J* = 8.4 Hz, 2H), 7.74 (br. s, 2H), 7.43-7.38 (m, 4H), 6.81 (d, *J* = 9 Hz, 2H), 3.98 (t, *J* = 5.85 Hz, 2H), 2.99 (quint., *J* = 7 Hz, 1H), 2.66 (m, 2H), 2.55-2.4 (m, 4H), 1.56-1.45 (m, 4H), 1.40-1.35 (m, 2H), 1.25 (d, *J* = 6.9 Hz, 6H) ppm; MS (ES) 449.50 (M+H), 447.48 (M-H);

 5-amino-1-(4-(*iso*-propyl)phenyl)carbonyl-3-(4-(morpholin-4-yl)phenylamino)-1H-1,2,4-triazole (compound #52), yellow solid, ¹H-NMR (DMSO-*d*₆, 300 MHz) 8.97 (s, 1H), 8.13 (d, *J* = 8.4 Hz, 2H), 7.73 (br. s, 2H), 7.41 (d, *J* = 8.7 Hz, 2H), 7.38 (d, *J* = 9.0 Hz, 2H), 6.82 (d, *J* = 9.3 Hz, 2H), 3.70 (m, 4H), 2.97 (m, 5H), 1.25 (d, *J* = 6.9 Hz, 6H) ppm; MS (ES) 407.14 (M+H), 405.24 (M-H);

 5-amino-1-(4-(methyl)phenyl)carbonyl-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #53), yellow solid, ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.03 (s, 1H), 8.09 (d, *J* = 8.4 Hz, 2H), 7.73 (br. s, 2H), 7.41-7.33 (m, 4H), 6.80 (d, *J* = 8.7 Hz, 2H), 3.99 (m, 2H), 2.52 (m, 2H), 2.41 (s, 4H), 1.82 (s, 3H), 1.50 (br.

s, 4H), 1.39 (br. s, 2H) ppm; MS (ES) 421.47 (M+H), 419.42 (M-H).

5-amino-1-(4-(methyl)phenyl)carbonyl-3-(4-(morpholin-4-yl)phenylamino)-1H-1,2,4-triazole (compound #54), yellow solid, ¹H-NMR (DMSO-*d*₆, 300 MHz) 8.98 (s, 1H), 8.10 (d, *J* = 8.1 Hz, 2H), 7.72 (br. s, 2H), 7.38 (d, *J* = 8.7 Hz, 2H), 7.35 (d, *J* = 8.7 Hz, 2H), 6.82 (d, *J* = 8.7 Hz, 2H), 3.70 (m, 4H), 2.97 (m, 4H), 2.41 (s, 3H) ppm; MS (ES) 379.13 (M+H), 377.16 (M-H);

5-amino-3-[4-(*iso*-propoxy)phenylamino]-1-(4-(methyl)phenyl)carbonyl-1H-1,2,4-triazole (compound #55), yellow solid, ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.01 (s, 1H), 8.09 (d, *J* = 8.4 Hz, 2H), 7.73 (br. s, 2H), 7.38 (d, *J* = 9.3 Hz, 2H), 7.35 (d, *J* = 8.4 Hz, 2H), 6.77 (d, *J* = 8.7 Hz, 2H), 4.45 (quint., *J* = 5.9 Hz, 1H), 2.40 (s, 3H), 1.20 (d, *J* = 6.0 Hz, 6H) ppm; MS (ES) 352.11 (M+H), 350.19 (M-H).

3-amino-5-[4-(*iso*-propoxy)phenylamino]-1-(4-(methyl)phenyl)carbonyl-1H-1,2,4-triazole (compound #56);

5-amino-3-(4-(morpholin-4-yl)phenylamino)-1-(4-(*tert*-butoxy)phenyl)carbonyl-1H-1,2,4-triazole (compound #57); yellow solid, ¹H-NMR (DMSO-*d*₆, 300 MHz) 8.97 (s, 1H), 8.17 (d, *J* = 9 Hz, 2H), 7.71 (br. s, 2H), 7.38 (d, *J* = 9 Hz, 2H), 7.11 (d, *J* = 8.7 Hz, 2H), 6.82 (d, *J* = 9.0 Hz, 2H), 3.70 (m, 4H), 2.97 (m, 4H), 1.41 (s, 9H) ppm; MS (ES) 437.17 (M+H), 435.26 (M-H);

3-amino-5-(4-(morpholin-4-yl)phenylamino)-1-(4-(*tert*-butoxy)phenyl)carbonyl-1H-1,2,4-triazole (compound #58);

5-amino-1-(3-(methyl)phenyl)carbonyl-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #59); yellow solid, ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.04 (s, 1H), 8.15 (s, 1H), 8.02 (br. s, 1H), 7.90 (d, *J* = 6 Hz, 1H), 7.74 (br. s, 2H), 7.44-7.38 (m, 4H), 6.78 (d, *J* = 9.3 Hz, 2H), 3.96 (t, *J* = 5.85 Hz, 2H), 2.59 (t, *J* = 6 Hz, 2H), 2.42 (m, 4H), 2.41 (s, 3H), 1.48 (m, 4H), 1.37 (m, 2H) ppm; MS (ES) 421.47 (M+H), 419.44 (M-H);

5-amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-3-[4-[2-(thiomorpholin-4-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #60); yellow solid, ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.02 (s, 1H), 8.23 (d, *J* = 9.0 Hz, 2H), 7.70 (br. s, 2H), 7.41 (d, *J* = 9.0 Hz, 2H), 7.05 (d, *J* = 9.0 Hz, 2H), 6.82 (d, *J* = 9.0 Hz, 2H), 4.78 (quint., *J* = 5.9 Hz, 1H), 3.97 (t, *J* = 6.0 Hz, 2H), 2.74-2.67 (m, 6H), 2.59-2.56 (m, 4H), 1.31 (d, *J* = 5.7 Hz, 6H) ppm; MS (ES) 483.47 (M+H), 481.36 (M-H);

5-amino-1-(3-(methyl)phenyl)carbonyl-3-[4-[2-(thiomorpholin-4-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #61); yellow solid, ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.03 (s, 1H), 8.02 (br. s, 1H), 7.90 (d, *J* = 6.3 Hz, 1H), 7.73 (br. s, 2H),

7.44-7.39 (m, 4H), 6.78 (d, $J = 8.7$ Hz, 2H), 3.96 (t, $J = 5.8$ Hz, 2H), 2.74-2.71 (m, 4H), 2.68 (t, $J = 5.7$ Hz, 2H), 2.59-2.56 (m, 4H), 2.41 (s, 3H) ppm; MS (ES) 439.41 (M+H), 437.33 (M-H).

5-amino-1-(4-(cyclohexyl)phenyl)carbonyl-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #62);

5-amino-3-(2,2-difluoro-2H-benzo[b][1,4]oxazin-3(4H)-on-6-yl)amino-1-(4-(isopropoxy)phenyl)carbonyl-1H-1,2,4-triazole (compound #63);

5-amino-3-(2,2-difluoro-2H-benzo[b][1,4]oxazin-3(4H)-on-6-yl)amino-1-(3-(methyl)phenyl)carbonyl-1H-1,2,4-triazole (compound #64);

5-amino-1-(2,2-dimethyl-2H-benzo[b][1,4]oxazin-3(4H)-on-6-yl)carbonyl-3-(4-(isopropoxy)phenyl)amino-1H-1,2,4-triazole (compound #65); yellow solid, $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 10.87 (s, 1H), 9.02 (s, 1H), 7.94 (dd, $J = 8.1$ Hz, $J = 1.8$ Hz, 1H), 7.72 (br. s, 2H), 7.69 (d, $J = 1.8$ Hz, 1H), 7.39 (d, $J = 9.0$ Hz, 2H), 7.08 (d, $J = 8.4$ Hz, 1H), 6.77 (d, $J = 9.0$ Hz, 2H), 4.45 (quint., $J = 6.0$ Hz, 1H), 1.46 (s, 6H), 1.21 (d, $J = 6.0$ Hz, 6H) ppm; MS (ES) 437.46 (M+H), 435.38 (M-H);

3-amino-1-(2,2-dimethyl-2H-benzo[b][1,4]oxazin-3(4H)-on-6-yl)carbonyl-5-(4-(isopropoxy)phenyl)amino-1H-1,2,4-triazole (compound #66);

5-amino-1-(3-(hydroxy)phenyl)carbonyl-3-(4-(morpholin-4-yl)phenylamino)-1H-1,2,4-triazole (compound #67); yellow solid, $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 9.77 (s, 1H), 8.97 (s, 1H), 7.72 (br. s, 2H), 7.59 (d, $J = 7.8$ Hz, 1H), 7.49 (t, $J = 1.95$ Hz, 1H), 7.38 (d, $J = 8.7$ Hz, 2H), 7.32 (t, $J = 7.8$ Hz, 1H), 7.00 (dd, $J = 7.8$ Hz, $J = 1.8$ Hz, 1H), 6.80 (d, $J = 9.0$ Hz, 2H), 3.70 (m, 4H), 2.96 (m, 4H) ppm; MS (ES) 381.08 (M+H), 379.16 (M-H).

5-amino-1-(2,2-dimethyl-2H-benzo[b][1,4]oxazin-3(4H)-on-6-yl)carbonyl-3-(4-(morpholin-4-yl)phenylamino)-1H-1,2,4-triazole (compound #68); yellow solid, $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 10.86 (s, 1H), 8.96 (s, 1H), 7.98 (dd, $J = 8.4$ Hz, $J = 2.1$ Hz, 1H), 7.70 (br. s, 2H), 7.66 (d, $J = 2.1$ Hz, 1H), 7.38 (d, $J = 9.0$ Hz, 2H), 7.08 (d, $J = 8.4$ Hz, 1H), 6.82 (d, $J = 9.0$ Hz, 2H), 3.70 (m, 4H), 2.97 (m, 4H), 1.45 (s, 6H) ppm; MS (ES) 464.46 (M+H), 462.41 (M-H);

3-amino-1-(2,2-dimethyl-2H-benzo[b][1,4]oxazin-3(4H)-on-6-yl)carbonyl-5-(4-(morpholin-4-yl)phenylamino)-1H-1,2,4-triazole (compound #69);

5-amino-1-(4-(aminosulfonyl)phenyl)carbonyl-3-(4-(morpholin-4-yl)phenylamino)-1H-1,2,4-triazole (compound #70);

5-amino-3-[4-(isopropoxy)phenylamino]-1-(3-(nitro)phenyl)carbonyl-1H-1,2,4-triazole (compound #71); yellow solid, $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 9.25 (t, $J = 2.1$ Hz, 1H), 9.12 (s, 1H), 8.49-8.45 (m, 2H), 7.87-7.81 (m, 3H), 7.42 (d, $J = 8.7$ Hz, 2H), 6.76 (d,

$J = 9.0$ Hz, 2H), 4.43 (quint., $J = 6.0$ Hz, 1H), 1.21 (d, $J = 6.0$ Hz, 6H) ppm; MS (ES) 383.39 (M+H), 381.36 (M-H);

5-amino-3-(4-(morpholin-4-yl)phenylamino)-1-(3-(nitro)phenyl)carbonyl-1H-1,2,4-triazole (compound #72); yellow solid, $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 9.22 (s, 1H), 9.08 (s, 1H), 8.48 (m, 2H), 7.84 (m, 3H), 7.40 (d, $J = 8.1$ Hz, 2H), 6.80 (d, $J = 8.7$ Hz, 2H), 3.70 (m, 4H), 2.96 (m, 4H) ppm; MS (ES) 410.42 (M+H), 408.38 (M-H);

5-amino-1-(3-(hydroxy)phenyl)carbonyl-3-[4-(*iso*-propoxy)phenylamino]-1H-1,2,4-triazole (compound #73); yellow solid, $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 9.74 (s, 1H), 8.99 (s, 1H), 7.71 (br. s, 2H), 7.58 (d, $J = 8.1$ Hz, 1H), 7.50 (t, $J = 2.4$ Hz, 1H), 7.38 (d, $J = 9.3$ Hz, 2H), 7.32 (t, $J = 7.9$ Hz, 1H), 6.99 (dd, $J = 8.1$ Hz, $J = 2.7$ Hz, 1H), 6.74 (d, $J = 9.3$ Hz, 2H), 4.44 (quint., $J = 6.0$ Hz, 1H), 1.20 (d, $J = 5.7$ Hz, 6H) ppm; MS (ES) 354.41 (M+H), 352.38 (M-H);

5-amino-1-(3-(chloro)phenyl)carbonyl-3-(4-(morpholin-4-yl)phenylamino)-1H-1,2,4-triazole (compound #74); yellow solid, $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 9.03 (s, 1H), 8.29 (t, $J = 1.8$ Hz, 1H), 8.02 (d, $J = 7.8$ Hz, 1H), 7.77 (br. s, 2H), 7.72-7.69 (m, 1H), 7.57 (t, $J = 7.95$ Hz, 1H), 7.37 (d, $J = 9.3$ Hz, 2H), 6.80 (d, $J = 9.3$ Hz, 2H), 3.70 (m, 4H), 2.96 (m, 4H) ppm; MS (ES) 399.38 (M+H), 397.34 (M-H);

3-amino-1-(3-(chloro)phenyl)carbonyl-5-(4-(morpholin-4-yl)phenylamino)-1H-1,2,4-triazole (compound #75);

5-amino-1-(3-(chloro)phenyl)carbonyl-3-[4-(*iso*-propoxy)phenylamino]-1H-1,2,4-triazole (compound #76);

5-amino-3-[4-(*iso*-propoxy)phenylamino]-1-[4-[2-(piperidin-1-yl)ethoxy]phenyl)carbonyl-1H-1,2,4-triazole (compound #77); yellow solid, $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 9.01 (s, 1H), 8.24 (d, $J = 9.0$ Hz, 2H), 7.70 (br. s, 2H), 7.40 (d, $J = 9.0$ Hz, 2H), 7.08 (d, $J = 9.3$ Hz, 2H), 6.80 (d, $J = 9.0$ Hz, 2H), 4.45 (quint., $J = 6.0$ Hz, 1H), 4.18 (t, $J = 5.7$ Hz, 2H), 2.70 (t, $J = 5.7$ Hz, 2H), 2.60 (m, 4H), 1.56-1.47 (m, 4H), 1.38 (m, 2H), 1.21 (d, $J = 6.0$ Hz, 6H) ppm; MS (ES) 465.59 (M+H), 463.55 (M-H);

5-amino-1-(2,2-dimethyl-2H-benzo[b][1,4]oxazin-3(4H)-on-6-yl)carbonyl-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #78); yellow solid, $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 10.86 (s, 1H), 9.02 (s, 1H), 7.96 (dd, $J = 8.4$ Hz, $J = 1.8$ Hz, 1H), 7.71 (br. s, 2H), 7.67 (d, $J = 1.8$ Hz, 1H), 7.40 (d, $J = 8.7$ Hz, 2H), 7.08 (d, $J = 8.1$ Hz, 1H), 6.79 (d, $J = 8.4$ Hz, 2H), 3.97 (t, $J = 5.85$ Hz, 2H), 2.62 (t, $J = 5.7$ Hz, 2H), 2.43 (m, 4H), 1.54-1.44 (m, 4H), 1.45 (s, 6H), 1.42-1.32 (m, 2H) ppm; MS (ES) 506.14 (M+H), 504.33 (M-H);

5-amino-1-(3-(methoxycarbonyl)phenyl)carbonyl-3-[4-[2-(piperidin-1-

yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #79); yellow solid, ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.09 (s, 1H), 8.90 (t, *J* = 1.2 Hz, 1H), 8.34 (dt, *J* = 7.8 Hz, *J* = 1.8 Hz, 1H), 8.19 (dt, *J* = 7.5 Hz, *J* = 1.5 Hz, 1H), 7.80 (br. s, 2H), 7.70 (t, *J* = 7.5 Hz, 1H), 7.41 (d, *J* = 9.0 Hz, 2H), 6.77 (d, *J* = 9.0 Hz, 2H), 3.96 (t, *J* = 6.0 Hz, 2H), 3.89 (s, 3H), 2.59 (t, *J* = 6.0 Hz, 2H), 2.39 (m, 4H), 1.49-1.22 (m, 6H) ppm; MS (ES) 465.95 (M+H), 463.52 (M-H);

5-amino-1-(3-(methoxy)phenyl)carbonyl-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #80); yellow solid, ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.05 (s, 1H), 7.77 (br. s, 2H), 7.70-7.66 (m 2H), 7.46 (d, *J* = 7.8 Hz, 1H), 7.40 (d, *J* = 8.7 Hz, 2H), 7.19 (dd, *J* = 8.4 Hz, *J* = 3.0 Hz, 1H), 6.77 (d, *J* = 9.0 Hz, 2H), 3.95 (t, *J* = 5.85 Hz, 2H), 3.82 (s, 3H), 2.58 (t, *J* = 6 Hz, 2H), 2.39 (m, 4H), 1.46 (m, 4H), 1.37 (m, 2H) ppm; MS (ES) 437.89 (M+H), 435.53 (M-H);

5-amino-1-(3-(methoxy)phenyl)carbonyl-3-(4-(morpholin-4-yl)phenylamino)-1H-1,2,4-triazole (compound #81); yellow solid, ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.01 (s, 1H), 7.78 (t, *J* = 1.9 Hz, 1H), 7.75 (br. s, 2H), 7.69 (d, *J* = 7.8 Hz, 1H), 7.45 (t, *J* = 8.1 Hz, 1H), 7.39 (d, *J* = 9.0 Hz, 2H), 7.19 (dd, *J* = 8.1 Hz, *J* = 2.4 Hz, 1H), 6.79 (d, *J* = 9.0 Hz, 2H), 3.82 (s, 3H), 3.70 (m, 4H), 2.97 (m, 4H) ppm; MS (ES) 395.09 (M+H), 393.22 (M-H);

5-amino-3-[4-[2-(dimethylamino)ethoxy]phenylamino]-1-(4-(methyl)phenyl)carbonyl-1H-1,2,4-triazole (compound #82);

5-amino-3-[4-[2-(dimethylamino)ethoxy]phenylamino]-1-(4-(*tert*-butoxy)phenyl)carbonyl-1H-1,2,4-triazole (compound #83); yellow solid, ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.02 (s, 1H), 8.17 (d, *J* = 8.7 Hz, 2H), 7.71 (br. s, 2H), 7.41 (d, *J* = 9.0 Hz, 2H), 7.11 (d, *J* = 8.7 Hz, 2H), 6.81 (d, *J* = 9.0 Hz, 2H), 3.98 (t, *J* = 5.85 Hz, 2H), 2.68 (t, *J* = 5.85 Hz, 2H), 2.27 (s, 6H), 1.41 (s, 9H) ppm; MS (ES) 439.61 (M+H), 437.61 (M-H);

5-amino-3-[4-[2-(dimethylamino)propoxy]phenylamino]-1-(4-(*iso*-propoxy)phenyl)carbonyl-1H-1,2,4-triazole (compound #84); yellow solid, ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.02 (s, 1H), 8.23 (d, *J* = 9.0 Hz, 2H), 7.70 (br. s, 2H), 7.42 (d, *J* = 9.0 Hz, 2H), 7.05 (d, *J* = 9.3 Hz, 2H), 6.01 (d, *J* = 9.0 Hz, 2H), 4.78 (quint., *J* = 6.0 Hz, 1H), 3.91 (t, *J* = 6.1 Hz, 2H), 2.53 (m, 2H), 2.28 (s, 6H), 1.85 (quint., *J* = 6.9 Hz, 2H), 1.31 (d, *J* = 5.7 Hz, 6H) ppm; MS (ES) 439.61 (M+H), 437.64 (M-H);

5-amino-3-[4-[2-(dimethylamino)ethoxy]phenylamino]-1-(4-(*iso*-propoxy)phenyl)carbonyl-1H-1,2,4-triazole (compound #85); yellow solid, ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.03 (s, 1H), 8.23 (d, *J* = 9.0 Hz, 2H), 7.70 (br. s, 2H), 7.42 (d, *J* = 9.0 Hz, 2H), 7.05 (d, *J* = 9.3 Hz, 2H), 6.83 (d, *J* = 9.0 Hz, 2H), 4.78 (quint., *J* = 6.0 Hz, 1H), 3.97 (t, *J* = 5.85 Hz, 2H), 2.65 (t, *J* = 5.7 Hz, 2H), 2.24 (s, 6H), 1.31 (d, *J* = 6.0 Hz, 6H) ppm; MS (ES) 425.18 (M+H), 423.23 (M-H);

5-amino-3-[4-[2-(dimethylamino)ethoxy]phenylamino]-1-(2,2-dimethyl-2H-benzo[b][1,4]oxazin-3(4H)-on-6-yl)carbonyl-1H-1,2,4-triazole (compound #86); yellow solid, ¹H-NMR (DMSO-*d*₆, 300 MHz) 10.87 (s, 1H), 9.03 (s, 1H), 7.95 (dd, *J* = 8.4 Hz, *J* = 2.1 Hz, 1H), 7.72 (br. s, 2H), 7.68 (d, *J* = 2.1 Hz, 1H), 7.40 (dd, *J* = 6.9 Hz, *J* = 2.4 Hz, 2H), 7.08 (d, *J* = 8.4 Hz, 1H), 6.80 (d, *J* = 9.3 Hz, 2H), 3.95 (t, *J* = 5.85 Hz, 2H), 2.60 (t, *J* = 5.7 Hz, 2H), 2.21 (s, 6H), 1.45 (s, 6H) ppm; MS (ES) 466.15 (M+H), 464.22 (M-H);

5-amino-3-[4-[2-(dimethylamino)ethoxy]phenylamino]-1-(4-(dimethylamino)phenyl)carbonyl-1H-1,2,4-triazole (compound #87); yellow solid, ¹H-NMR (DMSO-*d*₆, 300 MHz) 8.97 (s, 1H), 8.24 (d, *J* = 9.3 Hz, 2H), 7.63 (br. s, 2H), 7.44 (d, *J* = 9.0 Hz, 2H), 6.84 (d, *J* = 9.0 Hz, 2H), 6.76 (d, *J* = 9.6 Hz, 2H), 3.96 (t, *J* = 5.85 Hz, 2H), 3.04 (s, 6H), 2.58 (t, *J* = 6 Hz, 2H), 2.20 (s, 6H) ppm; MS (ES) 410.18 (M+H), 408.22 (M-H);

5-amino-1-(4-(dimethylamino)phenyl)carbonyl-3-[4-[2-(dimethylamino)propoxy]phenylamino]-1H-1,2,4-triazole (compound #88); yellow solid, ¹H-NMR (DMSO-*d*₆, 300 MHz) 8.97 (s, 1H), 8.25 (d, *J* = 9.3 Hz, 2H), 7.63 (br. s, 2H), 7.44 (d, *J* = 9.0 Hz, 2H), 6.82 (d, *J* = 9.0 Hz, 2H), 6.77 (d, *J* = 9.6 Hz, 2H), 3.19 (t, *J* = 6.3 Hz, 2H), 3.04 (s, 6H), 2.39 (t, *J* = 5.4 Hz, 2H), 2.17 (d, *J* = 1.5 Hz, 6H), 1.81 (Quint., *J* = 6.75 Hz, 2H) ppm; MS (ES) 424.19 (M+H), 422.29 (M-H);

5-amino-3-[4-[2-(dimethylamino)propoxy]phenylamino]-1-(4-(*tert*-butoxy)phenyl)carbonyl-1H-1,2,4-triazole (compound #89); yellow solid, ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.01 (s, 1H), 8.17 (d, *J* = 8.7 Hz, 2H), 7.71 (br. s, 2H), 7.40 (d, *J* = 9.0 Hz, 2H), 7.11 (d, *J* = 8.7 Hz, 2H), 6.78 (d, *J* = 8.7 Hz, 2H), 3.89 (t, *J* = 6.3 Hz, 2H), 2.31 (t, *J* = 6.9 Hz, 2H), 2.11 (s, 6H) 1.78 (m, 2H), 1.41 (s, 9H) ppm; MS (ES) 453.19 (M+H), 451.33 (M-H);

5-amino-3-[4-[2-(dimethylamino)propoxy]phenylamino]-1-(2,2-dimethyl-2H-benzo[b][1,4]oxazin-3(4H)-on-6-yl)carbonyl-1H-1,2,4-triazole (compound #90); yellow solid, ¹H-NMR (DMSO-*d*₆, 300 MHz) 10.87 (s, 1H), 9.02 (s, 1H), 7.95 (dd, *J* = 9.0 Hz, *J* = 2.1 Hz, 1H), 7.72 (br. s, 2H), 7.68 (d, *J* = 1.8 Hz, 1H), 7.40 (d, *J* = 9.0 Hz, 2H), 7.08 (d, *J* = 8.4 Hz, 1H), 6.78 (d, *J* = 9.3 Hz, 2H), 3.89 (t, *J* = 6.4 Hz, 2H), 2.31 (t, *J* = 7.0 Hz, 2H), 2.11 (s, 6H) 1.78 (m, 2H), 1.45 (s, 9H) ppm; MS (ES) 480.14 (M+H), 478.31 (M-H);

5-amino-3-[4-[3-(dimethylamino)propoxy]phenylamino]-1-(4-(methyl)phenyl)carbonyl-1H-1,2,4-triazole (compound #91); yellow solid, ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.02 (s, 1H), 8.09 (d, *J* = 8.4 Hz, 2H), 7.73 (br. s, 2H), 7.39 (d, *J* = 9.3 Hz, 2H), 7.35 (d, *J* = 8.7 Hz, 2H), 6.78 (d, *J* = 9.0 Hz, 2H), 3.89 (t, *J* = 6.4 Hz, 2H), 2.40 (s, 3H), 2.32 (t, *J* = 7.2 Hz, 2H), 2.12 (s, 6H) 1.78 (quint., *J* = 6.9 Hz, 2H) ppm; MS

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(ES) 395.16 (M+H), 393.28 (M-H);

3-amino-5-(1,4-benzodioxan-6-yl)amino-1-phenylcarbonyl-1H-1,2,4-triazole
(compound #92);

5 3-amino-5-(1,4-benzodioxan-6-yl)amino-1-methoxycarbonyl-1H-1,2,4-triazole
(compound #93);

5-amino-1-(2-(chloro)phenyl)carbonyl-3-(1,4-benzodioxan-6-yl)amino-1H-1,2,4-
triazole (compound #94);

5-amino-1-(4-(chloro)phenyl)carbonyl-3-(1,4-benzodioxan-6-yl)amino-1H-1,2,4-
triazole (compound #95);

10 5-amino-3-(1,4-benzodioxan-6-yl)amino-1-(3-(methyl)phenyl)carbonyl-1H-1,2,4-
triazole (compound #96);

5-amino-3-(1,4-benzodioxan-6-yl)amino-1-(2-(methyl)phenyl)carbonyl-1H-1,2,4-
triazole (compound #97);

15 5-amino-3-(1,4-benzodioxan-6-yl)amino-1-(3-(methoxy)phenyl)carbonyl-1H-1,2,4-
triazole (compound #98);

5-amino-3-(1,4-benzodioxan-6-yl)amino-1-(2-(fluoro)phenyl)carbonyl-1H-1,2,4-
triazole (compound #99);

5-amino-3-(1,4-benzodioxan-6-yl)amino-1-(4-(fluoro)phenyl)carbonyl-1H-1,2,4-
triazole (compound #100);

20 5-amino-1-(3-(chloro)phenyl)carbonyl-3-(1,4-benzodioxan-6-yl)amino-1H-1,2,4-
triazole (compound #101);

5-amino-3-(1,4-benzodioxan-6-yl)amino-1-(4-(methyloxy)phenyl)carbonyl-1H-
1,2,4-triazole (compound #102);

25 5-amino-3-(2-(ethoxycarbonyl)benzofuran-5-yl)amino-1-(3-(iso-
propoxy)phenyl)carbonyl-1H-1,2,4-triazole (compound #103);

5-amino-3-(1,4-benzodioxan-6-yl)amino-1-(4-(methyl)phenyl)carbonyl-1H-1,2,4-
triazole (compound #104);

5-amino-3-(1,4-benzodioxan-6-yl)amino-1-(3-(fluoro)phenyl)carbonyl-1H-1,2,4-
triazole (compound #105);

30 5-amino-3-(1,4-benzodioxan-6-yl)amino-1-(2-(methyloxy)phenyl)carbonyl-1H-
1,2,4-triazole (compound #106);

5-amino-3-[3-(hydroxy)phenylamino]-1-(2-(methyl)phenyl)carbonyl-1H-1,2,4-
triazole (compound #107, (Ia-6));

35 5-amino-3-[3-(hydroxy)phenylamino]-1-(3-(methyl)phenyl)carbonyl-1H-1,2,4-
triazole (compound #108, (Ia-7));

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1-(4-(Acetoxy)phenyl)carbonyl-5-amino-3-(1,4-benzodioxan-6-yl)amino-1H-1,2,4-triazole (compound #109);

1-(3-(Acetoxy)phenyl)carbonyl-5-amino-3-(1,4-benzodioxan-6-yl)amino-1H-1,2,4-triazole (compound #110);

5 5-amino-3-[4-(*iso*-propoxy)phenylamino]-1-(4-(*iso*-propoxy)phenyl)carbonyl-1H-1,2,4-triazole (compound #111);

5-amino-3-(1,4-benzodioxan-6-yl)amino-1-(3-(*iso*-propoxy)phenyl)carbonyl-1H-1,2,4-triazole (compound #112);

10 5-amino-3-(1,4-benzodioxan-6-yl)amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-1H-1,2,4-triazole (compound #113);

5-amino-1-(4-(ethoxyphenyl)carbonyl-3-(1,4-benzodioxan-6-yl)amino-1H-1,2,4-triazole (compound #114);

5-amino-3-[3-(cyclopentoxy)phenylamino]-1-(4-(*iso*-propoxy)phenyl)carbonyl-1H-1,2,4-triazole (compound #116);

15 5-amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-3-[4-(methoxy)phenylamino]-1H-1,2,4-triazole (compound #117);

5-amino-3-[4-(ethoxy)phenylamino]-1-(4-(*iso*-propoxy)phenyl)carbonyl-1H-1,2,4-triazole (compound #118);

20 1-(2-(acetoxy)phenyl)carbonyl-5-amino-3-(1,4-benzodioxan-6-yl)amino-1H-1,2,4-triazole (compound #119);

5-amino-1-(4-(cyclopentoxy)phenyl)carbonyl-3-(1,4-benzodioxan-6-yl)amino-1H-1,2,4-triazole (compound #120);

5-amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-3-[3-(methoxy)phenylamino]-1H-1,2,4-triazole (compound #121);

25 5-amino-3-[3-(*iso*-propoxy)phenylamino]-1-(4-(*iso*-propoxy)phenyl)carbonyl-1H-1,2,4-triazole (compound #122);

5-amino-3-[4-(fluoro)phenylamino]-1-(4-(methyl)phenyl)carbonyl-1H-1,2,4-triazole (compound #123);

30 5-amino-3-[3-(fluoro)phenylamino]-1-(4-(methyl)phenyl)carbonyl-1H-1,2,4-triazole (compound #124);

5-amino-3-[3-(ethoxy)phenylamino]-1-(4-(*iso*-propoxy)phenyl)carbonyl-1H-1,2,4-triazole (compound #125);

5-amino-3-(1,4-benzodioxan-6-yl)amino-1-[4-(methoxycarbonylmethoxy)phenyl]carbonyl-1H-1,2,4-triazole (compound #126);

35 5-amino-1-(3-(cyclopentoxy)phenyl)carbonyl-3-(1,4-benzodioxan-6-yl)amino-1H-

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1,2,4-triazole (compound #127);

5-amino-1-(3-(ethoxy)phenyl)carbonyl-3-(1,4-benzodioxan-6-yl)amino-1H-1,2,4-triazole (compound #128);

5-amino-3-[2-(fluoro)phenylamino]-1-(4-(methyl)phenyl)carbonyl-1H-1,2,4-triazole
5 (compound #129);

5-amino-3-[N-(2-(tetrahydropyran-2-yloxy)methylbenzofuran-5-yl)amino]-1-(3-(methyl)phenyl)carbonyl-1H-1,2,4-triazole (compound #130);

5-amino-3-[4-(methyl)phenylamino]-1-(4-(methyl)phenyl)carbonyl-1H-1,2,4-triazole (compound #131);

10 5-amino-3-[4-(methoxy)phenylamino]-1-(4-(methyl)phenyl)carbonyl-1H-1,2,4-triazole (compound #132);

5-amino-3-[3-(methyl)phenylamino]-1-(4-(methyl)phenyl)carbonyl-1H-1,2,4-triazole (compound #133);

15 5-amino-3-[3-(methoxy)phenylamino]-1-(4-(methyl)phenyl)carbonyl-1H-1,2,4-triazole (compound #134);

5-amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-3-[3-(methoxycarbonylmethoxy)phenylamino]-1H-1,2,4-triazole (compound #135);

5-amino-3-(2-(hydroxymethyl)benzofuran-5-yl)amino-1-(3-(methyl)phenyl)carbonyl-1H-1,2,4-triazole (compound #136);

20 5-amino-1-(4-(methyl)phenyl)carbonyl-3-phenylamino-1H-1,2,4-triazole (compound #137);

5-amino-3-(1,4-benzodioxan-6-yl)amino-1-[3-(methoxycarbonylmethoxy)phenyl]carbonyl-1H-1,2,4-triazole (compound #138);

25 5-amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-3-[3-(2,2,2-trifluoroethoxy)phenylamino]-1H-1,2,4-triazole (compound #139);

3-amino-5-phenylamino-1-(*trans*-2-(furan-2-yl)ethenyl)carbonyl-1H-1,2,4-triazole (compound #140); mp 190-193 °C; ¹H NMR (300 MHz, DMSO-*d*₆) δ 10.04 (s, 1H), 7.94 (s, 1H), 7.76-7.66 (m, 3H), 7.39-7.30 (m, 3H), 7.10 (m, 2H), 6.71 (m, 2H), 6.15 (br s, 2H); ¹³C NMR (75 MHz, DMSO-*d*₆) δ 163.5, 160.9, 152.7, 150.1, 146.2, 137.5, 131.5, 128.4, 122.4, 118.2, 117.3, 113.5, 112.6; IR (ATR) 3193, 1598, 1527 cm⁻¹; ESI MS *m/z* 296 [C₁₅H₁₃N₅O₂ + H]⁺; HPLC (Method 1) >99% (AUC), *t*_R = 14.22 min;

35 5-amino-3-phenylamino-1-(*trans*-2-(furan-2-yl)ethenyl)carbonyl-1H-1,2,4-triazole (compound #141); mp 212-216 °C; ¹H NMR (300 MHz, DMSO-*d*₆) δ 9.30 (s, 1H), 7.97 (s, 1H), 7.72-7.57 (m, 5H), 7.34-7.25 (m, 3H), 7.11 (d, *J* = 3.3 Hz, 1H), 6.88 (m, 1H), 6.71 (m, 1H); ¹³C NMR (75 MHz, DMSO-*d*₆) δ 162.2, 156.6, 154.9, 149.1, 145.2, 139.5, 130.5,

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127.2, 118.6, 116.3, 115.2, 112.3, 111.6; IR (ATR) 3334, 1674, 1642, 1609 cm^{-1} ; ESI MS m/z 296 $[\text{C}_{15}\text{H}_{13}\text{N}_5\text{O}_2 + \text{H}]^+$; HPLC (Method 1) >99% (AUC), t_R = 13.38 min;

5-amino-1-(4-(benzyloxy)phenyl)carbonyl-3-(1,4-benzodioxan-6-yl)amino-1H-1,2,4-triazole (compound #142);

5 5-amino-3-[2-(methoxy)phenylamino]-1-(4-(methyl)phenyl)carbonyl-1H-1,2,4-triazole (compound #143);

5-amino-3-[2-(methyl)phenylamino]-1-(4-(methyl)phenyl)carbonyl-1H-1,2,4-triazole (compound #144);

10 5-amino-3-[-2-(hydroxy)ethoxy]phenylamino]-1-(3-(methyl)phenyl)carbonyl-1H-1,2,4-triazole (compound #145);

5-amino-3-[3-(methylaminocarbonylmethoxy)phenylamino]-1-(3-(methyl)phenyl)carbonyl-1H-1,2,4-triazole (compound #146);

5-amino-3-[3-(methoxycarbonylmethoxy)phenylamino]-1-(3-(methyl)phenyl)carbonyl-1H-1,2,4-triazole (compound #147);

15 5-amino-3-[3-(N-(2,2-dimethyl-1,3-dioxolan-4-yl)methyl)aminocarbonylmethoxy]phenylamino]-1-(3-(methyl)phenyl)carbonyl-1H-1,2,4-triazole (compound #148);

5-amino-3-(1,4-benzodioxan-6-yl)amino-1-[4-[2-(morpholin-4-yl)ethoxy]phenyl]carbonyl-1H-1,2,4-triazole (compound #149);

20 5-amino-3-(1,4-benzodioxan-6-yl)amino-1-[3-[2-(morpholin-4-yl)ethoxy]phenyl]carbonyl-1H-1,2,4-triazole (compound #150);

5-amino-3-[4-(cyclopentoxy)phenylamino]-1-(4-(*iso*-propoxy)phenyl)carbonyl-1H-1,2,4-triazole (compound #151);

25 5-amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-3-[4-(2,2,2-trifluoroethoxy)phenylamino]-1H-1,2,4-triazole (compound #152);

5-amino-3-[3-(N-(2,3-dihydroxypropyl)amino)carbonylmethoxy]-phenylamino-1-(3-(methyl)phenyl)carbonyl-1H-1,2,4-triazole (compound #153);

5-amino-3-(indazol-5-yl)amino-1-(3-(methyl)phenyl)carbonyl-1H-1,2,4-triazole (compound #154);

30 3-amino-1-(3-(benzyloxy)phenyl)carbonyl-5-(1,4-benzodioxan-6-yl)amino-1H-1,2,4-triazole (compound #155);

5-amino-1-(3-(benzyloxy)phenyl)carbonyl-3-(1,4-benzodioxan-6-yl)amino-1H-1,2,4-triazole (compound #156);

35 5-amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-3-[4-(methoxycarbonylmethoxy)phenylamino]-1H-1,2,4-triazole (compound #157);

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5-amino-3-[4-[2-(1,3-dioxolan-2-yl)ethoxy]phenylamino]-1-(4-(*iso*-propoxy)phenyl)carbonyl-1H-1,2,4-triazole (compound #158);

5-amino-1-(4-(*iso*-propoxy)phenylcarbonyl-3-[4-[2-(morpholin-4-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #159);

5 5-amino-3-(indazol-6-yl)amino-1-(3-(methyl)phenyl)carbonyl-1H-1,2,4-triazole (compound #160);

5-amino-3-(benzo[b][1,4]oxazin-3(4H)-on-6-yl)amino-1-(3-(methyl)phenyl)carbonyl-1H-1,2,4-triazole (compound #161);

10 5-amino-3-(1,4-benzodioxan-6-yl)amino-1-(4-(hydroxy)phenyl)carbonyl-1H-1,2,4-triazole (compound #162);

5-amino-1-(4-(*iso*-propoxy)phenylcarbonyl-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #163);

3-amino-5-[3-[cyclohexylaminocarbonylmethoxy]phenylamino]-1-(3-(methyl)phenyl)carbonyl-1H-1,2,4-triazole (compound #164);

15 5-amino-3-[3-[cyclohexylaminocarbonylmethoxy]phenylamino]-1-(3-(methyl)phenyl)carbonyl-1H-1,2,4-triazole (compound #165);

5-amino-3-(1,4-benzodioxan-6-yl)amino-1-(3-(hydroxy)phenyl)carbonyl-1H-1,2,4-triazole (compound #166);

20 3-amino-5-[(2H,3H-4-*tert*-butoxycarbonylbenzo[1,4]oxazin-6-yl)-[(2H,3H-4-*tert*-butoxycarbonylbenzo[1,4]oxazin-6-yl)amino]-1-(3-(methyl)phenyl)carbonyl-1H-1,2,4-triazole (compound #167);

5-amino-1-(3-(*iso*-propoxy)phenyl)carbonyl-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #168); off-white solid, ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.05 (s, 1H), 8.14 (d, *J* = 0.9 Hz, 1H), 7.74 (d, *J* = 8.4 Hz, 2H), 7.63 (d, *J* = 7.4 Hz, 1H), 7.43 (t, *J* = 7.7 Hz, 1H), 7.40 (d, *J* = 8.7 Hz, 2H), 7.17 (dd, *J* = 8.3 Hz, *J* = 2.6 Hz, 1H), 6.76 (d, *J* = 8.7 Hz, 2H), 4.66 (quint, *J* = 6.0 Hz, 1H), 3.97, (t, *J* = 5.9 Hz, 2H), 2.62 (t, *J* = 6.0 Hz, 2H), 2.42 (m, 4H), 1.48 (m, 4H), 1.38-1.35 (m, 2H), 1.29 (d, *J* = 6 Hz, 6H) ppm; MS (ES) 465.57 (M+H), 453.55 (M-H);

30 5-amino-1-(3-(*iso*-propoxy)phenyl)carbonyl-3-[4-[2-(morpholin-4-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #169); off-white solid, ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.05 (s, 1H), 8.12 (d, *J* = 1.5 Hz, 1H), 7.74 (d, *J* = 9.3 Hz, 2H), 7.63 (d, *J* = 7.5 Hz, 1H), 7.46-7.36 (m, 3H), 7.17 (d, *J* = 7.5 Hz, 1H), 6.77 (d, *J* = 8.7 Hz, 2H), 4.66 (quint., *J* = 5.1 Hz, 1H), 3.98 (t, *J* = 5.9 Hz, 1H), 3.55 (t, *J* = 4.5 Hz, 2H), 2.63 (t, *J* = 5.6 Hz, 1H), 2.44 (m, 2H), 1.29 (d, *J* = 5.1 Hz, 6H) ppm; MS (ES) 467.14 (M+H), 465.30 (M-H);

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5-amino-1-(3-(*iso*-propoxy)phenyl)carbonyl-3-[3-(1,3-oxazol-5-yl)phenylamino]-1H-1,2,4-triazole (compound #170); white solid, ¹H-NMR (MeOH-d₄, 300 MHz) 8.18 (s, 1H), 8.13 (m, 1H), 7.78-7.72 (m, 2H), 7.44 (t, *J* = 8.1 Hz, 1H), 7.33-7.19 (m, 5H), 4.63 (quint., *J* = 5.7 Hz, 1H), 1.26 (d, *J* = 5.7 Hz, 6H) ppm; MS (ES) 405.06 (M+H), 403.15 (M-H);

5-amino-1-(3-(*iso*-propoxy)pyridin-5-yl)carbonyl-3-[4-[2-(morpholin-4-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #171), yellow solid, ¹H-NMR (DMSO-d₆, 300 MHz) 9.09 (s, 1H), 8.74 (d, *J* = 1.8 Hz, 1H), 8.44 (d, *J* = 2.7 Hz, 1H), 8.05 (t, *J* = 1.5 Hz, 1H), 7.79 (br. s, 2H), 7.37 (d, *J* = 8.7 Hz, 2H), 6.76 (d, *J* = 9 Hz, 2H), 4.73 (quint., *J* = 6 Hz, 1H), 3.98 (t, *J* = 5.4 Hz, 2H), 3.55 (m, 4H), 2.63 (t, *J* = 5.7 Hz, 2H), 2.43 (m, 4H), 1.31 (d, *J* = 6 Hz, 6H) ppm; MS (ES) 468.48 (M+H), 466.49 (M-H);

5-amino-N-(4-chlorophenyl)-3-[4-(methoxy)phenylamino]-1H-1,2,4-triazole-1-carboxamide (compound #172);

5-amino-3-(4-methoxyphenyl)amino-1-(*tert*-butoxycarbonyl)-1H-1,2,4-triazole (compound #173);

3-[4-(acetyl(methyl)amino)phenyl]amino-5-amino-N-(4-chlorophenyl)-1H-1,2,4-triazole-1-carboxamide (compound #174);

3-[4-(acetyl(methyl)amino)phenyl]amino-5-amino-N-(1,3-benzodioxol-5-yl)-1H-1,2,4-triazole-1-carboxamide (compound #175);

5-[4-(acetyl(methyl)amino)phenyl]amino-3-amino-N-(1,3-benzodioxol-5-yl)-1H-1,2,4-triazole-1-carboxamide (compound #176);

3-[4-(acetyl(methyl)amino)phenyl]amino-5-amino-N-cyclopentyl-1H-1,2,4-triazole-1-carboxamide (compound #177);

5-[4-(acetyl(methyl)amino)phenyl]amino-3-amino-N-cyclopentyl-1H-1,2,4-triazole-1-carboxamide (compound #178);

3-[4-(acetyl(methyl)amino)phenyl]amino-5-amino-N-(4-(*iso*-propyl)phenyl)-1H-1,2,4-triazole-1-carboxamide (compound #179);

3-[4-(acetyl(methyl)amino)phenyl]amino-5-amino-N-(4-(*butoxy*)phenyl)-1H-1,2,4-triazole-1-carboxamide (compound #180);

3-amino-N-(4-(*butoxy*)phenyl)-5-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole-1-carboxamide (compound #182);

3-amino-N-(4-(methyl)phenyl)-5-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole-1-carboxamide (compound #183);

3-amino-N-(4-(methoxy)phenyl)-5-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole-1-carboxamide (compound #184);

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3-[4-(acetyl(methyl)amino)phenyl]amino-5-amino-N-cyclohexyl-1H-1,2,4-triazole-1-carboxamide (compound #185);

3-[4-(acetyl(methyl)amino)phenyl]amino-3-amino-N-cyclohexyl-1H-1,2,4-triazole-1-carboxamide (compound #186);

5 3-amino-N-(3-(methyl)phenyl)-5-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole-1-carboxamide (compound #187);

3-amino-N-(3,5-dimethoxyphenyl)-5-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole-1-carboxamide (compound #188);

10 3-amino-N-cyclohexyl-5-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole-1-carboxamide (compound #189);

3-amino-N-cyclopentyl-5-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole-1-carboxamide (compound #190);

3-amino-1-(4-*iso*-propoxyphenyl)carbonyl-5-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #191);

15 3-amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-5-[4-(piperidin-1-yl)phenylamino]-1H-1,2,4-triazole (compound #192);

3-amino-N-(1,3-benzodioxol-5-yl)-5-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole-1-carboxamide (compound #193);

20 5-amino-N-(4-cyanophenyl)-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole-1-carboxamide (compound #194);

5-amino-1-[2-(bicyclo[2.2.1]hept-5-ene)carbonyl]-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #196);

5-amino-1-(3-(dimethylamino)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #197);

25 5-amino-1-(3,4-(dimethoxy)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #198);

5-amino-N-(3,5-(dimethyl)phenyl)-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole-1-carboxamide (compound #199);

30 5-amino-1-[2-(bicyclo[2.2.1]heptane)carbonyl]-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #200);

5-amino-3-[4-(piperidin-1-yl)phenylamino]-1-(*tert*-butoxycarbonyl)-1H-1,2,4-triazole (compound #201);

3-amino-1-(1H-indol-5-yl)carbonyl-5-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #202);

35 5-amino-1-(pyridin-2-yl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-

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1,2,4-triazole (compound #203);

5-amino-1-(pyridin-4-yl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-

1,2,4-triazole (compound #204);

5-amino-3-[(2H,3H-4-*tert*-butoxycarbonylbenzo[1,4]oxazin-6-yl)amino]-1-(3-

5 methylphenyl)carbonyl-1,2,4-triazole (compound #206);

5-amino-1-(3-methylphenyl)carbonyl-3-[2-[N-[2-(tetrahydropyran-2-yl)oxy)ethyl]amino]carbonylbenzofuran-5-yl]amino-1H-1,2,4-triazole (compound #207);

5-amino-3-[2-[2-hydroxyethylaminocarbonyl]benzofuran-5-yl]amino-1-(3-methylphenyl)carbonyl-1H-1,2,4-triazole (compound #208);

10 3-amino-1-[3-[2-(1,3-dioxolan-2-yl)ethoxy]phenylcarbonyl-5-(1,4-benzodioxan-6-yl)amino]-1H-1,2,4-triazole (compound #209);

5-amino-1-[3-[2-(1,3-dioxolan-2-yl)ethoxy]phenylcarbonyl-3-(1,4-benzodioxan-6-yl)amino]-1H-1,2,4-triazole (compound #210);

15 5-amino-3-[2-(hydroxyl)phenylamino]-1-(4-methylphenyl)carbonyl-1H-1,2,4-triazole (compound #211);

5-amino-1-(3-methylphenyl)carbonyl-3-[3-[(2-methoxyethoxy)methoxy]phenylamino]-1H-1,2,4-triazole (compound #212);

3-amino-1-[4-[2-(1,3-dioxolan-2-yl)ethoxy]phenylcarbonyl-5-(1,4-benzodioxan-6-yl)amino]-1H-1,2,4-triazole (compound #213);

20 5-amino-1-[4-[2-(1,3-dioxolan-2-yl)ethoxy]phenylcarbonyl-3-(1,4-benzodioxan-6-yl)amino]-1H-1,2,4-triazole (compound #214);

5-amino-3-[(3,4-dihydrobenzo[1,4]oxazin-6-yl)amino]-1-(3-methylphenyl)carbonyl-1H-1,2,4-triazole (compound #215);

25 5-amino-3-(3-methoxymethoxy)phenylamino-1-(3-methylphenyl)carbonyl-1H-1,2,4-triazole (compound #216);

5-amino-3-(4-chlorophenyl)amino-1-(4-chlorophenyl)carbonyl-1H-1,2,4-triazole (compound #217);

5-amino-3-(4-bromophenyl)amino-1-(4-chlorophenyl)carbonyl-1H-1,2,4-triazole (compound #218);

30 5-amino-3-[2-(ethoxycarbonyl)benzofuran-5-yl]amino-1-(3-methylphenyl)carbonyl-1H-1,2,4-triazole (compound #219);

5-amino-1-(3-methylphenyl)carbonyl-3-(pyridin-3-yl)amino-1H-1,2,4-triazole (compound #220);

35 5-amino-1-(3-methylphenyl)carbonyl-3-[(3-*tert*-butoxycarbonylmethoxy)phenyl]amino-1H-1,2,4-triazole (compound #221);

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5-amino-3-(2-methyl-2H-indazol-5-yl)amino-1-(3-methylphenyl)carbonyl-1H-1,2,4-triazole (compound #222);

5-amino-1-(3-methylphenyl)carbonyl-3-[3-[2-(tetrahydropyran-2-yl)ethoxyaminocarbonyl]methoxy]phenylamino-1H-1,2,4-triazole (compound #223);

5 5-amino-3-(3-hydroxycarbonylmethoxy)phenylamino-1-(3-methylphenyl)carbonyl-1H-1,2,4-triazole (compound #224);

5-amino-3-[3-((2-hydroxyethyl)aminocarbonylmethoxy)phenyl]amino-1-(3-methylphenyl)carbonyl-1H-1,2,4-triazole (compound #225);

10 5-amino-3-(1,4-benzodioxan-6-yl)amino-1-[4-[2-(piperidin-1-yl)ethoxy]phenyl]carbonyl-1H-1,2,4-triazole (compound #226);

5-amino-3-[1-methyl-1H-indazol-5-yl]amino-1-(3-methylphenyl)carbonyl-1H-1,2,4-triazole (compound #227);

5-amino-3-(1,4-benzodioxan-6-yl)amino-1-(3-(2,2,2-trifluoroethoxy)phenyl)carbonyl-1H-1,2,4-triazole (compound #228);

15 5-amino-3-(benzofuran-5-yl)amino-1-(3-methylphenyl)carbonyl-1H-1,2,4-triazole (compound #229);

5-amino-3-(1,4-benzodioxan-6-yl)amino-1-(4-(2,2,2-trifluoroethoxy)phenyl)carbonyl-1H-1,2,4-triazole (compound #230);

20 5-amino-1-(3-aminocarbonylmethoxy)phenylcarbonyl-3-(1,4-benzodioxan-6-yl)amino-1H-1,2,4-triazole (compound #231);

5-amino-3-(1,4-benzodioxan-6-yl)amino-1-(4-*iso*-propylphenyl)carbonyl-1H-1,2,4-triazole (compound #232);

3-amino-5-(1,4-benzodioxan-6-yl)amino-1-(4-*iso*-propylphenyl)carbonyl-1H-1,2,4-triazole (compound #233);

25 5-amino-1-(3,4-dimethylphenyl)carbonyl-3-(1,4-benzodioxan-6-yl)amino-1H-1,2,4-triazole (compound #234);

5-amino-1-(3-methylphenyl)carbonyl-3-[3-(methylsulfonylmethoxy)phenyl]amino-1H-1,2,4-triazole (compound #235);

30 3-amino-1-(3,4-dimethylphenyl)carbonyl-5-(1,4-benzodioxan-6-yl)amino-1H-1,2,4-triazole (compound #236);

5-amino-3-(1,4-benzodioxan-6-yl)amino-1-(4-thiomethylphenyl)carbonyl-1H-1,2,4-triazole (compound #237);

3-amino-5-(1,4-benzodioxan-6-yl)amino-1-(4-thiomethylphenyl)carbonyl-1H-1,2,4-triazole (compound #238);

35 5-amino-3-(1,4-benzodioxan-6-yl)amino-1-(3,5-dimethylphenyl)carbonyl-1H-1,2,4-

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triazole (compound #239);

5-amino-3-(1,4-benzodioxan-6-yl)amino-1-(4-nitrophenyl)carbonyl-1H-1,2,4-

triazole (compound #240);

3-amino-5-(1,4-benzodioxan-6-yl)amino-1-[(4-fluoro-3-methyl)phenyl]carbonyl-

5 1H-1,2,4-triazole (compound #241);

5-amino-3-(1,4-benzodioxan-6-yl)amino-1-[(4-fluoro-3-methyl)phenyl]carbonyl-

1H-1,2,4-triazole (compound #242);

5-amino-1-(4-aminophenyl)carbonyl-3-(1,4-benzodioxan-6-yl)amino-1H-1,2,4-

triazole (compound #243);

10 5-amino-3-(1,4-benzodioxan-6-yl)amino-1-[(4-trifluoromethyl)phenyl]carbonyl-1H-1,2,4-triazole (compound #244);

5-amino-1-(4-cyanophenyl)carbonyl-3-(1,4-benzodioxan-6-yl)amino-1H-1,2,4-

triazole (compound #245);

1-[(4-Acetylamino)phenyl]carbonyl-5-amino-3-(1,4-benzodioxan-6-yl)amino-1H-

15 1,2,4-triazole (compound #246);

5-amino-1-[(4-dimethylamino)phenyl]carbonyl-3-(1,4-benzodioxan-6-yl)amino-1H-

1,2,4-triazole (compound #247);

5-amino-3-(1,4-benzodioxan-6-yl)amino-1-[(4-methylsulfonyl)phenyl]carbonyl-1H-

1,2,4-triazole (compound #248);

20 5-amino-1-[(3-chloro-4-methyl)phenyl]carbonyl-3-(1,4-benzodioxan-6-yl)amino-1H-1,2,4-triazole (compound #249);

5-amino-3-(benzothiazol-6-yl)amino-1-(3-methylphenyl)carbonyl-1H-1,2,4-triazole

(compound #250);

5-amino-1-(3-methylphenyl)carbonyl-3-(6-quinoliny)amino-1H-1,2,4-triazole

25 (compound #251);

5-amino-3-(1H-indol-5-yl)amino-1-(3-methylphenyl)carbonyl-1H-1,2,4-triazole

(compound #252);

5-amino-3-(1H-2-methyl-indazol-6-yl)amino-1-(3-methylphenyl)carbonyl-1H-1,2,4-

triazole (compound #253);

30 5-amino-3-(1H-1-methyl-indazol-6-yl)amino-1-(3-methylphenyl)carbonyl-1H-1,2,4-triazole (compound #254);

5-amino-3-(1H-2-methyl-indol-5-yl)amino-1-(3-methylphenyl)carbonyl-1H-1,2,4-

triazole (compound #255);

5-amino-3-(benzothiazol-2-yl)amino-1-(3-methylphenyl)carbonyl-1H-1,2,4-triazole

35 (compound #256);

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5-amino-3-(1,4-benzodioxan-6-yl)amino-1-(3-methyl-4-methoxy)phenylcarbonyl-1H-1,2,4-triazole (compound #257);

5-amino-3-(1,4-benzodioxan-6-yl)amino-1-(3-methyl-4-*iso*-propoxy)phenylcarbonyl-1H-1,2,4-triazole (compound #258);

5 5-amino-3-(1,2-benzisothiazol-5-yl)amino-1-(3-methylphenyl)carbonyl-1H-1,2,4-triazole (compound #259);

5-amino-3-(3-methyl-1,2-benzisothiazol-5-yl)amino-1-(3-methylphenyl)carbonyl-1H-1,2,4-triazole (compound #260);

10 1-Acetyl-5-amino-3-(1,4-benzodioxan-6-yl)amino-1H-1,2,4-triazole (compound #261);

5-amino-3-[4-[2-(pyrrolidin-1-yl)ethoxy]-3-fluorophenyl]amino-1-[4-(morpholin-4-yl)phenyl]carbonyl-1H-1,2,4-triazole (compound #262), ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.21 (s, 1H), 8.20 (d, *J* = 0.9 Hz, 1H), 7.75 (m, 2H), 6.80 - 7.60 (m, 4H), 4.10 (m, 1H), 3.75 (m, 4H), 3.30 (m, 5H), 3.20 (m, 2H), 2.95 (m, 2H), 2.85 (m, 1H), 2.40 - 2.60 (m, 15 5H), 1.65 (m, 2H) ppm;

5-amino-1-(4-(*tert*-butyl)phenyl)carbonyl-3-[3-(1,3-oxazol-5-yl)phenylamino]-1H-1,2,4-triazole (compound #263), tan solid; ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.48 (s, 1H), 8.39 (s, 1H), 8.14 (d, *J* = 8.4 Hz, 2H), 8.08 (s, 1H), 7.82 (s, 2H), 7.57 (d, *J* = 8.4 Hz, 2H), 7.36 (s, 1H), 7.32-7.28 (m, 2H), 1.35 (s, 9H) ppm; MS (ES) 403.07 (M+H), 401.24 (M-H);

20 5-amino-1-(4-(*tert*-butoxy)phenyl)carbonyl-3-[3-(1,3-oxazol-5-yl)phenylamino]-1H-1,2,4-triazole (compound #264), off-white solid; ¹H-NMR (DMSO-*d*₆, 300 MHz) 8.33 (dt, *J* = 9.0 Hz, 2.1 Hz, 2H), 8.03 (t, *J* = 1.8 Hz, 1H), 7.89 (s, 1H), 7.32 (t, *J* = 7.5 Hz, 2H), 7.25 (s, 1H), 7.11-7.08 (m, 3H), 6.72 (s, 2H), 1.48 (s, 9H) ppm; MS (ES) 419.04 (M+H), 417.18 (M-H);

25 5-amino-1-(1H-indol-6-yl)carbonyl-3-[4-[2-(morpholin-4-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #265), off-white solid; ¹H-NMR (DMSO-*d*₆, 300 MHz) 11.59 (s, 1H), 9.02 (s, 1H), 8.52 (s, 1H), 8.12 (s, 1H), 7.85-7.59 (m, 6H), 7.46 (d, *J* = 9.0 Hz, 2H), 6.83 (d, *J* = 9.0 Hz, 2H), 6.55-6.54 (m, 1H), 3.99 (t, *J* = 5.7 Hz, 2H), 3.56 (t, *J* = 4.5 Hz, 4H), 2.64 (t, *J* = 5.7 Hz, 2H), 2.45 (t, *J* = 4.5 Hz, 4H) ppm; MS (ES) 448.108 (M+H), 30 446.23 (M-H);

5-amino-1-(4-(*tert*-butyl)phenyl)carbonyl-3-[4-[2-(morpholin-4-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #266), yellow solid; ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.02 (s, 1H), 8.16-8.12 (m, 3H), 7.74 (s, 2H), 7.56 (d, *J* = 8.7 Hz, 2H), 7.41 (d, *J* = 8.7 Hz, 2H), 6.82 (d, *J* = 8.7 Hz, 2H), 4.00 (t, *J* = 5.7 Hz, 2H), 3.56 (t, *J* = 4.5 Hz, 4H), 2.64 (t, *J* = 5.7 Hz, 2H), 2.45 (t, *J* = 4.5 Hz, 4H), 1.34 (s, 9H) ppm; MS 35

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(ES) 465.15 (M+H), 463.29 (M-H);;

5-amino-1-(4-(*tert*-butoxy)phenyl)carbonyl-3-[4-[2-(morpholin-4-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #267), off-white solid; ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.02 (s, 1H), 8.18 (d, *J* = 8.7 Hz, 2H), 8.11 (s, 1H), 7.71 (s, 2H), 7.41 (d, *J* = 8.7 Hz, 2H), 7.32 (d, *J* = 8.7 Hz, 2H), 6.82 (d, *J* = 8.7 Hz, 2H), 4.00 (t, *J* = 4.2 Hz, 2H), 3.56 (t, *J* = 3.6 Hz, 4H), 2.64 (t, *J* = 5.7 Hz, 2H), 2.45 (t, *J* = 4.5 Hz, 4H), 1.42 (s, 9H) ppm; MS (ES) 481.18 (M+H), 479.25 (M-H);

5-amino-1-(4-(imidazol-1-yl)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #268), yellow solid; ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.09 (s, 1H), 8.44 (s, 1H), 8.32 (d, *J* = 9.0 Hz, 2H), 8.14 (s, 3H), 7.91 (s, 1H), 7.87 (d, *J* = 8.7 Hz, 2H), 7.78 (m, 2H), 7.42 (d, *J* = 9.0 Hz, 2H), 7.15 (s, 1H), 6.83 (d, *J* = 9.3 Hz, 2H), 3.98 (t, *J* = 6.7 Hz, 2H), 2.79 (t, *J* = 6.7 Hz, 2H), 2.55 (m, 4H), 1.68 (m, 4H) ppm; MS (ES) 459.08 (M+H), 457.22 (M-H);

5-amino-1-(4-(phenoxy)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #269), pale yellow solid; ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.04 (s, 1H), 8.25 (d, *J* = 9.0 Hz, 2H), 8.17 (s, 1H), 7.74 (s, 1H), 7.49-7.39 (m, 4H), 7.24 (t, *J* = 7.2 Hz, 1H), 7.15 (d, *J* = 8.7 Hz, 2H), 7.09 (d, *J* = 7.2 Hz, 2H), 6.81 (d, *J* = 6.6 Hz, 2H), 3.99 (t, *J* = 6.0 Hz, 2H), 2.81 (t, *J* = 6.0 Hz, 2H), 2.58 (m, 4H), 1.69 (m, 4H) ppm; MS (ES) 485.07 (M+H), 483.30 (M-H);

5-amino-1-(4-(*tert*-butoxycarbonylamino)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #270), yellow solid; ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.78 (s, 1H), 9.02 (s, 1H), 8.18-8.14 (m, 3H), 7.70 (s, 2H), 7.59 (d, *J* = 9.0 Hz, 2H), 7.41 (d, *J* = 9.0 Hz, 2H), 6.81 (d, *J* = 9.0 Hz, 2H), 4.00 (t, *J* = 6.0 Hz, 2H), 2.82 (t, *J* = 6.0 Hz, 2H), 2.58 (m, 4H), 1.69 (m, 4H), 1.50 (s, 9H) ppm; MS (ES) 508.13 (M+H), 506.27 (M-H);

5-amino-1-(benzo[d]thiazol-6-yl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #271), off-white solid; pale yellow solid; ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.60 (s, 1H), 9.06 (d, *J* = 9.0 Hz, 2H), 8.24 (q, *J* = 8.4 Hz, 3H), 8.14 (d, *J* = 9.0 Hz, 1H), 7.80 (s, 2H), 7.41 (d, *J* = 9.0 Hz, 2H), 6.78 (d, *J* = 9.0 Hz, 2H), 3.97 (t, *J* = 6.0 Hz, 2H), 2.78 (m, 2H), 1.68 (m, 4H) ppm; MS (ES) 450.04 (M+H), 448.22 (M-H);

5-amino-1-(4-(*tert*-butoxy)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenyl][methyl]amino-1H-1,2,4-triazole (compound #272), off-white solid; ¹H-NMR (DMSO-*d*₆, 300 MHz) 8.19 (d, *J* = 8.7 Hz, 2H), 7.71 (s, 2H), 7.29 (d, *J* = 8.7 Hz, 2H), 7.07 (d, *J* = 8.7 Hz, 2H), 6.88 (d, *J* = 8.7 Hz, 2H), 4.04 (t, *J* = 6.0 Hz, 2H), 3.29 (s,

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3H), 2.78 (t, $J = 6.0$ Hz, 2H), 2.53 (m, 4H), 1.68 (m, 4H), 1.40 (s, 9H) ppm; MS (ES) 479.13 (M+H);

5-amino-1-(4-(*tert*-butoyl)phenyl)carbonyl-3-[4-((*tert*-butoxycarbonyl)aminochroman-6-yl)]amino-1H-1,2,4-triazole (compound #273), off-white solid; $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 8.97 (s, 1H), 8.14 (d, $J = 8.4$ Hz, 2H), 7.75 (m, 2H), 7.62 (d, $J = 8.4$ Hz, 2H), 7.33-7.27 (m, 3H), 6.62 (d, $J = 9.0$ Hz, 1H), 6.78 (d, $J = 9.0$ Hz, 2H), 4.64 (m, 1H), 4.10 (t, $J = 5.3$ Hz, 2H), 1.98 (m, 1H), 1.85 (m, 1H), 1.38 (s, 9H), 1.34 (s, 9H) ppm; MS (ES) 507.70 (M+H), 505.73 (M-H);

5-amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-3-[4-((*tert*-butoxycarbonyl)aminochroman-6-yl)]amino-1H-1,2,4-triazole (compound #274), off-white solid; $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 8.97 (s, 1H), 8.28 (d, $J = 9.3$ Hz, 2H), 7.72 (s, 2H), 7.38-7.25 (m, 3H), 7.08 (d, $J = 9.3$ Hz, 2H), 6.64 (d, $J = 8.7$ Hz, 1H), 4.81 (quint., $J = 6.0$ Hz, 1H), 4.65 (m, 1H), 4.10 (t, $J = 5.7$ Hz, 2H), 1.98 (m, 1H), 1.85 (m, 1H), 1.32 (m, 15H) ppm; MS (ES) 509.64 (M+H), 507.62 (M-H);

5-amino-1-(4-(*tert*-butoxy)phenyl)carbonyl-3-[4-((*tert*-butoxycarbonyl)aminochroman-6-yl)]amino-1H-1,2,4-triazole (compound #275), off-white solid; $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 8.97 (s, 1H), 8.19 (d, $J = 9.0$ Hz, 2H), 7.73 (s, 2H), 7.33-7.27 (m, 3H), 7.17 (d, $J = 8.7$ Hz, 1H), 6.62 (d, $J = 9.0$ Hz, 2H), 4.64 (m, 1H), 4.10 (t, $J = 4.8$ Hz, 2H), 1.98 (m, 1H), 1.84 (m, 1H), 1.40 (m, 18H) ppm; MS (ES) 523.70 (M+H), 521.59 (M-H);

5-amino-1-(1H-indol-6-yl)carbonyl-3-[4-((*tert*-butoxycarbonyl)aminochroman-6-yl)]amino-1H-1,2,4-triazole (compound #276), off-white solid; $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 11.53 (s, 1H), 8.97 (s, 1H), 8.47 (s, 1H), 7.91 (d, $J = 7.5$ Hz, 2H), 7.73 (s, 2H), 7.66 (d, $J = 8.4$ Hz, 1H), 7.61 (m, 1H), 7.49 (dd, $J = 8.7, 2.7$ Hz, 1H), 7.32 (d, $J = 8.7$ Hz, 1H), 7.21 (s, 1H), 6.54 (d, $J = 8.7$ Hz, 1H), 6.52 (s, 1H), 4.64 (m, 1H), 4.10 (m, 2H), 1.98 (m, 1H), 1.85 (m, 1H), 1.39 (m, 9H) ppm; MS (ES) 490.61 (M+H), 488.55 (M-H);

5-amino-1-(4-(phenyl)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #277), yellow solid; $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 9.08 (s, 1H), 8.28 (d, $J = 8.7$ Hz, 2H), 8.16 (s, 1H), 7.86 (d, $J = 8.7$ Hz, 2H), 7.80 (m, 4H), 7.51 (t, $J = 7.2$ Hz, 2H), 7.45-7.40 (m, 3H), 6.83 (d, $J = 9.3$ Hz, 2H), 3.99 (t, $J = 6.0$ Hz, 2H), 2.80 (t, $J = 6.0$ Hz, 2H), 2.56 (m, 4H), 1.68 (m, 4H) ppm; MS (ES) 469.10 (M+H), 467.29 (M-H);

5-amino-1-[4-((*tert*-butoxycarbonyl)aminomethyl)phenyl]carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #278), yellow solid; $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 9.05 (s, 1H), 8.17 (s, 1H), 8.11 (d, $J = 8.1$ Hz, 2H), 7.75

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(s, 1H), 7.39 (t, $J = 6.0$ Hz, 4H), 6.79 (d, $J = 9.3$ Hz, 2H), 4.21 (d, $J = 6.0$ Hz, 2H), 4.00 (t, $J = 6.0$ Hz, 2H), 2.85 (t, $J = 6.0$ Hz, 2H), 2.62 (m, 4H), 1.71 (m, 4H), 1.41 (s, 9H) ppm; MS (ES) 522.65 (M+H), 520.59 (M-H);

5 5-amino-1-(2,3-dihydrobenzofuran-5-yl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #279), yellow solid; $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 9.04 (s, 1H), 8.17 (m, 2H), 8.08 (dd, $J = 8.6, 2.0$ Hz, 1H), 7.70 (s, 1H), 7.43 (d, $J = 9.3$ Hz, 2H), 6.94-6.82 (m, 3H), 4.67 (t, $J = 9.0$ Hz, 2H), 4.00 (t, $J = 6.0$ Hz, 2H), 3.28 (t, $J = 8.7$ Hz, 2H), 2.84 (t, $J = 6.0$ Hz, 2H), 2.60 (m, 4H), 1.70 (m, 4H) ppm; MS (ES) 435.58 (M+H), 433.46 (M-H);

10 5-amino-1-(4-(1,2,3-thiadiazol-4-yl)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #280), off-white solid; $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 9.81 (s, 1H), 9.10 (s, 1H), 8.33 (s, 4H), 8.17 (s, 1H), 7.80 (s, 2H), 7.42 (d, $J = 9.0$ Hz, 2H), 6.82 (d, $J = 9.0$ Hz, 2H), 3.97 (t, $J = 6.0$ Hz, 2H), 2.77 (t, $J = 6.0$ Hz, 2H), 2.53 (m, 4H), 1.67 (m, 4H) ppm; MS (ES) 477.51 (M+H), 475.47 (M-H);

15 5-amino-1-(1H-benzo[d][1,2,3]triazol-5-yl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #281), yellow solid; $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 9.09 (s, 1H), 8.93 (s, 1H), 8.16 (s, 1H), 8.11 (dd, $J = 8.7, 1.2$ Hz, 1H), 7.97 (d, $J = 8.4$ Hz, 2H), 6.79 (d, $J = 9.0$ Hz, 1H), 3.99 (t, $J = 5.7$ Hz, 2H), 2.83 (t, $J = 5.7$ Hz, 2H), 2.60 (m, 4H), 1.70 (m, 4H) ppm; MS (ES) 434.56 (M+H), 432.51 (M-H);

20 5-amino-1-(4-(pyrrol-1-yl)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #282), pale yellow solid; $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 9.09 (s, 1H), 8.32 (d, $J = 9.0$ Hz, 2H), 8.18 (s, 1H), 7.77 (m, 4H), 7.56 (m, 2H), 7.43 (d, $J = 9.3$ Hz, 2H), 6.85 (d, $J = 9.0$ Hz, 2H), 4.01 (t, $J = 6.0$ Hz, 2H), 2.63 (m, 4H), 1.71 (m, 4H) ppm; MS (ES) 458.56 (M+H), 456.55 (M-H);

25 5-amino-1-(3-methylthien-2-yl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #283), off-white solid; $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz), 9.80 (s, 1H), 9.21 (s, 1H), 7.95 (d, $J = 5.4$ Hz, 1H), 7.75 (s, 2H), 7.61 (d, $J = 9.0$ Hz, 2H), 7.13 (d, $J = 5.4$ Hz, 1H), 6.97 (d, $J = 9.0$ Hz, 2H), 4.24 (t, $J = 5.1$ Hz, 2H), 3.13 (m, 2H), 2.62 (s, 2H), 2.52 (s, 2H), 2.04-1.87 (m, 4H) ppm; MS (ES) 413.03 (M+H);

30 5-amino-1-(5-methylthien-2-yl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #284), pale yellow solid; $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz), 9.63 (s, 1H), 9.24 (s, 1H), 8.11 (d, $J = 3.9$ Hz, 1H), 7.75 (s, 2H), 7.60 (d, $J = 9.0$ Hz, 2H), 7.03 (d, $J = 3.9$ Hz, 1H), 6.99 (d, $J = 9.0$ Hz, 2H), 4.25 (t, $J = 5.1$ Hz, 2H), 3.57 (m, 2H), 3.14 (m, 2H), 2.58 (s, 2H), 2.04-1.87 (m, 4H) ppm; MS (ES)

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413.03 (M+H);

5-amino-1-(thien-2-yl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #285), pale yellow solid; ¹H-NMR (DMSO-*d*₆, 300 MHz), 8.50 (s, 1H), 8.35 (dd, *J* = 3.6, 1.2 Hz, 1H), 7.95 (dd, *J* = 5.1, 1.2 Hz, 1H), 7.62 (d, *J* = 9.0 Hz, 2H), 7.25 (dd, *J* = 5.1, 3.6 Hz, 1H), 7.01 (d, *J* = 9.0 Hz, 2H), 4.30 (t, *J* = 5.4 Hz, 2H), 3.58 (t, *J* = 5.4 Hz, 2H), 3.40 (m, 4H), 2.10 (m, 4H) ppm; MS (ES) 399.03 (M+H), 397.04 (M-H).

5-amino-1-(4-(methylamino)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #286), off-white solid; ¹H-NMR (DMSO-*d*₆, 300 MHz) 8.48 (s, 1H), 8.27-8.23 (m, 2H), 7.51 (d, *J* = 9.0 Hz, 2H), 6.94 (d, *J* = 9.0 Hz, 2H), 6.61 (d, *J* = 9.0 Hz, 2H), 4.27 (t, *J* = 5.1 Hz, 2H), 3.56 (t, *J* = 5.1 Hz, 2H), 3.40 (s, 4H), 2.79 (s, 3H), 2.10 (m, 4H) ppm; MS (ES) 422.07 (M+H), 420.24 (M-H);

5-amino-1-(4-(methylthio)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #287), off-white solid; ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.05 (s, 1H), 8.16 (m, 2H), 7.74 (s, 2H), 7.40 (m, 3H), 6.83 (d, *J* = 9.0 Hz, 2H), 3.99 (t, *J* = 6.0 Hz, 2H), 2.79 (t, *J* = 6.0 Hz, 2H), 2.57 (m, 7H), 1.69 (m, 4H) ppm; MS (ES) 439.02 (M+H), 437.22 (M-H);

5-amino-1-(quinolin-6-yl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #288), yellow solid; ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.11 (s, 1H), 9.03 (dd, *J* = 3.9, 1.2 Hz, 1H), 8.90 (d, *J* = 1.5 Hz, 1H), 8.54 (d, *J* = 9.0 Hz, 1H), 8.38 (dd, *J* = 9.0, 1.5 Hz, 1H), 8.17 (s, 1H), 8.13 (d, *J* = 9.0 Hz, 1H), 7.84 (s, 2H), 7.65 (dd, *J* = 7.8, 3.9 Hz, 1H), 7.42 (d, *J* = 9.0 Hz, 2H), 6.79 (d, *J* = 9.0 Hz, 2H), 4.00 (t, *J* = 5.7 Hz, 2H), 2.86 (t, *J* = 5.7 Hz, 2H), 2.63 (m, 4H), 1.70 (m, 4H) ppm; MS (ES) 444.04 (M+H), 442.29 (M-H);

5-amino-1-(2,6-difluorophenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #289), off-white solid; ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.09 (s, 1H), 8.16 (s, 1H), 7.86 (s, 2H), 7.66 (m, 2H), 7.29 (d, *J* = 8.4 Hz, 2H), 7.22 (d, *J* = 9.0 Hz, 1H), 6.70 (d, *J* = 9.0 Hz, 2H), 3.96 (t, *J* = 6.0 Hz, 2H), 2.80 (t, *J* = 6.0 Hz, 2H), 2.58 (m, 4H), 1.69 (m, 4H) ppm; MS (ES) 429.06 (M+H), 427.18 (M-H);

5-amino-1-(4-(*tert*-butylcarbonylamino)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #290), pale yellow solid; ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.52 (s, 1H), 9.03 (s, 1H), 8.21 (d, *J* = 9.0 Hz, 2H), 8.60 (s, 1H), 7.83 (d, *J* = 8.4 Hz, 2H), 7.72 (s, 2H), 7.42 (d, *J* = 8.7 Hz, 2H), 6.81 (d, *J* = 8.7 Hz, 2H), 3.99 (t, *J* = 5.7 Hz, 2H), 2.78 (t, *J* = 6.0 Hz, 2H), 2.54 (m, 4H), 1.68 (m, 4H), 1.25 (s, 9H)

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ppm; MS (ES) 492.13 (M+H), 490.30 (M-H);

5-amino-1-(4-(*tert*-butoxy)phenyl)carbonyl-3-[4-(pyrrolidin-1-yl)phenylamino]-1H-1,2,4-triazole (compound #291), yellow solid; ¹H-NMR (DMSO-*d*₆, 300 MHz) 8.74 (s, 1H), 8.18 (d, *J* = 8.7 Hz, 2H), 7.67 (s, 2H), 7.33 (d, *J* = 8.7 Hz, 2H), 7.11 (d, *J* = 8.7 Hz, 2H), 6.44 (d, *J* = 9.0 Hz, 2H), 3.14 (m, 4H), 1.91 (m, 4H), 1.41 (s, 9H) ppm; MS (ES) 421.15 (M+H), 419.20 (M-H);

3-amino-1-(4-(*tert*-butoxy)phenyl)carbonyl-5-(4-(pyrrolidin-1-yl)phenylamino)-1H-1,2,4-triazole (compound #292), yellow solid; ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.88 (s, 1H), 8.15 (d, *J* = 9.0 Hz, 2H), 7.50 (d, *J* = 9.0 Hz, 2H), 7.07 (d, *J* = 8.7 Hz, 2H), 6.52 (d, *J* = 9.0 Hz, 2H), 5.98 (s, 2H), 3.20 (m, 4H), 1.94 (m, 4H), 1.39 (s, 9H) ppm; MS (ES) 421.13 (M+H);

5-amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-3-[4-(pyrrolidin-1-yl)phenylamino]-1H-1,2,4-triazole (compound #293), yellow solid; ¹H-NMR (DMSO-*d*₆, 300 MHz) 8.74 (s, 1H), 8.24 (d, *J* = 9.0 Hz, 2H), 7.66 (s, 2H), 7.34 (d, *J* = 9.0 Hz, 2H), 7.04 (d, *J* = 9.3 Hz, 2H), 6.46 (d, *J* = 8.7 Hz, 2H), 4.78 (sept., *J* = 6.0 Hz, 1H), 3.15 (m, 4H), 1.91 (m, 4H), 1.31 (d, 6.0 Hz, 6H) ppm; MS (ES) 407.10 (M+H), 405.06 (M-H);

3-amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-5-(4-(pyrrolidin-1-yl)phenylamino)-1H-1,2,4-triazole (compound #294), yellow solid; ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.91 (s, 1H), 8.22 (d, *J* = 8.7 Hz, 2H), 7.49 (d, *J* = 8.7 Hz, 2H), 7.01 (d, *J* = 8.7 Hz, 2H), 6.51 (d, *J* = 9.3 Hz, 2H), 5.97 (s, 2H), 4.75 (sept., 6.0 Hz, 1H), 3.20 (m, 4H), 1.94 (m, 4H), 1.30 (d, 5.7 Hz, 6H) ppm; MS (ES) 407.10 (M+H);

5-amino-1-(2,2-dimethyl-2H-benzo[*b*][1,4]oxazin-3(4H)-on-6-yl)carbonyl-3-[4-(pyrrolidin-1-yl)phenylamino]-1H-1,2,4-triazole (compound #295), yellow solid; ¹H-NMR (DMSO-*d*₆, 300 MHz) 8.74 (s, 1H), 7.98 (dd, *J* = 8.7, 2.1 Hz, 1H), 7.67 (m, 3H), 7.33 (d, *J* = 9.0 Hz, 2H), 7.07 (d, *J* = 8.4 Hz, 1H), 6.44 (d, *J* = 9.0 Hz, 2H), 3.14 (m, 4H), 1.91 (m, 4H), 1.45 (s, 6H) ppm; MS (ES) 448.06 (M+H), 446.15 (M-H);

3-amino-1-(2,2-dimethyl-2H-benzo[*b*][1,4]oxazin-3(4H)-on-6-yl)carbonyl-5-[4-(pyrrolidin-1-yl)phenylamino]-1H-1,2,4-triazole (compound #296), yellow solid; ¹H-NMR (DMSO-*d*₆, 300 MHz) 10.83 (s, 1H), 9.84 (s, 1H), 7.91 (dd, *J* = 8.4, 2.1 Hz, 1H), 7.68 (d, *J* = 2.1 Hz, 1H), 7.49 (d, *J* = 9.0 Hz, 2H), 7.03 (d, *J* = 8.7 Hz, 1H), 6.52 (d, *J* = 9.0 Hz, 2H), 5.98 (s, 2H), 3.20 (m, 4H), 1.94 (m, 4H), 1.44 (s, 6H) ppm; MS (ES) 448.12 (M+H), 446.16 (M-H);

5-amino-1-(4-(*tert*-butyl)phenyl)carbonyl-3-[4-(pyrrolidin-1-yl)phenylamino]-1H-1,2,4-triazole (compound #297), yellow solid; ¹H-NMR (DMSO-*d*₆, 300 MHz) 8.74 (s, 1H), 8.15 (d, *J* = 8.7 Hz, 2H), 7.70 (s, 2H), 7.55 (d, *J* = 8.7 Hz, 2H), 7.32 (d, *J* = 8.7 Hz,

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2H), 6.44 (d, $J = 9.0$ Hz, 2H), 3.14 (m, 4H), 1.91 (m, 4H), 1.34 (s, 9H) ppm; MS (ES) 404.13 (M+H);

3-amino-1-(4-(*tert*-butyl)phenyl)carbonyl-5-[4-(pyrrolidin-1-yl)phenylamino]-1H-1,2,4-triazole (compound #298), yellow solid; $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 9.84 (s, 1H), 8.03 (d, $J = 8.4$ Hz, 2H), 7.51 (dd, $J = 8.7, 2.7$ Hz, 4H), 6.52 (d, $J = 9.0$ Hz, 2H), 5.96 (s, 2H), 3.20 (m, 4H), 1.94 (m, 4H), 1.31 (s, 9H) ppm; MS (ES) 404.15 (M+H);

5-amino-1-(4-(dimethylamino)phenyl)carbonyl-3-[4-(pyrrolidin-1-yl)phenylamino]-1H-1,2,4-triazole (compound #299), yellow solid; $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 8.68 (s, 1H), 8.26 (d, $J = 9.0$ Hz, 2H), 7.59 (s, 2H), 7.37 (d, $J = 9.0$ Hz, 2H), 6.76 (d, $J = 9.3$ Hz, 2H), 6.47 (d, $J = 9.0$ Hz, 2H), 3.16 (m, 4H), 3.04 (s, 6H), 1.92 (m, 4H) ppm; MS (ES) 392.12 (M+H), 393.11 (M-H);

5-amino-1-(4-(methyl)phenyl)carbonyl-3-[4-(pyrrolidin-1-yl)phenylamino]-1H-1,2,4-triazole (compound #300), yellow solid; $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 8.76 (s, 1H), 8.04 (s, 1H), 7.92 (m, 1H), 7.69 (s, 2H), 7.43-7.41 (m, 2H), 7.33 (d, $J = 8.7$ Hz, 2H), 6.42 (d, $J = 8.7$ Hz, 2H), 3.13 (m, 4H), 2.41 (s, 3H), 1.91 (m, 4H) ppm; MS (ES) 363.10 (M+H), 361.17 (M-H);

3-amino-1-(4-methylphenyl)carbonyl-5-(4-(pyrrolidin-1-yl)phenylamino)-1H-1,2,4-triazole (compound #301), yellow solid; $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 9.82 (s, 1H), 7.88-7.84 (m, 2H), 7.50 (d, $J = 8.7$ Hz, 2H), 7.40-7.37 (m, 2H), 6.50 (d, $J = 9.0$ Hz, 2H), 5.98 (s, 2H), 3.20 (m, 4H), 2.37 (s, 3H), 1.94 (m, 4H) ppm; MS (ES) 363.10 (M+H), 361.29 (M-H);

5-amino-1-(4-(*tert*-butyl)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #302), yellow solid; $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 9.03 (s, 1H), 8.13 (d, $J = 8.4$ Hz, 2H), 7.75 (s, 2H), 7.56 (d, $J = 8.4$ Hz, 2H), 7.40 (d, $J = 8.7$ Hz, 2H), 6.81 (d, $J = 9.0$ Hz, 2H), 3.96 (t, $J = 5.7$ Hz, 2H), 2.59 (t, $J = 5.7$ Hz, 2H), 2.40 (m, 4H), 1.48 (m, 4H), 1.40-1.30 (m, 2H), 1.34 (s, 9H) ppm; MS (ES) 463.15 (M+H), 461.22 (M-H);

3-amino-1-(4-(*tert*-butyl)phenyl)carbonyl-5-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #303), yellow solid; $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 9.96 (s, 1H), 8.02 (d, $J = 8.7$ Hz, 2H), 7.64 (d, $J = 8.7$ Hz, 2H), 7.52 (d, $J = 8.7$ Hz, 2H), 6.92 (d, $J = 9.0$ Hz, 2H), 6.03 (s, 2H), 4.03 (t, $J = 6.0$ Hz, 2H), 2.62 (t, $J = 6.0$ Hz, 2H), 2.41 (m, 4H), 1.49 (m, 4H), 1.38 (m, 2H), 1.31 (s, 9H) ppm; MS (ES) 463.15 (M+H), 461.34 (M-H);

3-amino-1-(4-(morpholin-4-yl)phenyl)carbonyl-5-[3-fluoro-4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #304), yellow solid; $^1\text{H-NMR}$

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(DMSO-*d*₆, 300 MHz) 10.17 (s, 1H), 8.22 (d, *J* = 9.0 Hz, 2H), 7.86 (dd, *J* = 13.8, 3.0 Hz, 1H), 7.40 (d, *J* = 7.2 Hz, 1H), 7.15 (t, *J* = 9.1 Hz, 1H), 6.99 (d, *J* = 9.3 Hz, 2H), 6.04 (s, 2H), 4.14 (t, *J* = 5.7 Hz, 2H), 3.73 (m, 4H), 3.33 (m, 4H), 2.91 (s, 2H), 2.64 (s, 4H), 1.72 (m, 4H) ppm; MS (ES) 496.94 (M+H), 494.56 (M-H);

5 5-amino-1-(4-(*tert*-butoxy)phenyl)carbonyl-3-[3-fluoro-4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #305), yellow solid; ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.26 (s, 1H), 8.12 (d, *J* = 9.0 Hz, 2H), 7.74 (s, 2H), 7.49 (dd, *J* = 13.8, 2.1 Hz, 1H), 7.16-6.98 (m, 4H), 4.03 (t, *J* = 6.0 Hz, 2H), 2.76 (t, *J* = 5.7 Hz, 2H), 2.51 (m, 4H), 1.67 (m, 4H), 1.41 (s, 9H) ppm; MS (ES) 483.14 (M+H), 481.30 (M-H);

10 5-amino-1-(4-(1,2,3-thiadiazol-4-yl)phenyl)carbonyl-3-[3-fluoro-4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #306), yellow solid; ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.81 (d, *J* = 1.2 Hz, 1H), 9.31 (s, 1H), 8.30 (s, 4H), 8.14 (d, *J* = 1.5 Hz, 1H), 7.83 (s, 2H), 7.44 (dd, *J* = 14.1, 1.8 Hz, 1H), 7.17 (d, *J* = 10.2 Hz, 1H), 7.03 (t, *J* = 9.1 Hz, 1H), 4.02 (t, *J* = 6.0 Hz, 2H), 2.75 (t, *J* = 6.0 Hz, 2H), 2.51 (m, 4H), 1.65 (m, 4H) ppm; MS (ES) 495.05 (M+H), 493.14 (M-H);

15 5-amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-3-[3-fluoro-4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #307), yellow solid; ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.25 (s, 1H), 8.18 (d, *J* = 8.7 Hz, 2H), 7.73 (s, 2H), 7.47 (dd, *J* = 14.4, 2.4 Hz, 1H), 7.17 (d, *J* = 11.7 Hz, 1H), 7.08-7.02 (m, 3H), 4.76 (sept., *J* = 6.1 Hz, 1H), 4.04 (t, *J* = 6.0 Hz, 2H), 2.77 (t, *J* = 5.7 Hz, 2H), 2.53 (m, 4H), 1.67 (m, 4H), 1.31 (d, *J* = 5.7 Hz, 6H) ppm; MS (ES) 469.12 (M+H), 467.25 (M-H);

20 5-amino-1-(phenyl)carbonyl-3-[3-fluoro-4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #308), yellow solid; ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.27 (s, 1H), 8.13-8.08 (m, 2H), 7.78 (s, 2H), 7.66-7.42 (m, 4H), 7.12-6.98 (m, 2H), 4.03 (t, *J* = 6.0 Hz, 2H), 2.76 (t, *J* = 6.0 Hz, 2H), 2.51 (m, 4H), 1.67 (m, 4H) ppm; MS (ES) 411.10 (M+H), 409.20 (M-H);

30 5-amino-1-(1H-indol-6-yl)carbonyl-3-[3-fluoro-4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #309), yellow solid; ¹H-NMR (DMSO-*d*₆, 300 MHz) 11.55 (s, 1H), 9.25 (s, 1H), 8.41 (s, 1H), 8.14 (s, 1H), 7.82 (dd, *J* = 8.1, 1.2 Hz, 1H), 7.74 (s, 2H), 7.65-7.60 (m, 2H), 7.47 (dd, *J* = 14.1, 2.1 Hz, 1H), 7.20 (d, *J* = 9.9 Hz, 1H), 7.04 (t, *J* = 9.45 Hz, 1H), 6.54 (s, 1H), 4.03 (t, *J* = 6.0 Hz, 2H), 2.77 (t, *J* = 6.0 Hz, 2H), 2.52 (m, 4H), 1.67 (m, 4H) ppm; MS (ES) 450.09 (M+H), 448.24 (M-H);

35 5-amino-1-(3-(thiazol-2-yl)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #310), yellow solid; ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.12 (s, 1H), 8.90 (s, 1H), 8.22-8.13 (m, 3H), 7.98 (d, *J* = 3.0 Hz,

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1H), 7.87-7.80 (m, 3H), 7.68 (t, $J = 7.8$ Hz, 1H), 7.44 (d, $J = 8.7$ Hz, 2H), 6.69 (d, $J = 8.7$ Hz, 2H), 3.98 (t, $J = 5.7$ Hz, 2H), 2.88 (t, $J = 5.7$ Hz, 2H), 2.66 (m, 4H), 1.72 (m, 4H) ppm; MS (ES) 476.01 (M+H), 474.17 (M-H);

5-amino-1-(4-(thien-2-yl)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-

5 yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #311), yellow solid; $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 9.07 (s, 1H), 8.23 (d, $J = 8.4$ Hz, 2H), 7.84 (d, $J = 8.4$ Hz, 2H), 7.77 (s, 2H), 7.69 (m, 1H), 7.42 (d, $J = 9.0$ Hz, 2H), 7.19 (m, 1H), 6.83 (d, $J = 9.0$ Hz, 2H), 3.99 (t, $J = 6.0$ Hz, 2H), 2.79 (t, $J = 6.0$ Hz, 2H), 2.55 (m, 4H), 1.68 (m, 4H) ppm; MS (ES) 475.04 (M+H), 473.20 (M-H);

10 5-amino-1-(1,2,3-thiadiazol-4-yl)carbonyl-3-[4-[2-(pyrrolidin-1-

yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #312), pale yellow solid; $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz), 8.15 (s, 1H), 7.46 (d, $J = 8.7$ Hz, 2H), 6.98 (d, $J = 8.7$, 2H), 5.11 (s, 1H), 4.08 (t, $J = 5.7$ Hz, 2H), 2.86 (t, $J = 5.7$ Hz, 2H), 2.60 (m, 4H), 1.70 (m, 4H) ppm; MS (ES) 373.03 (M+H), 371.22 (M-H);

15 5-amino-1-(3-(thien-2-yl)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-

yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #313), off-white solid; $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 8.88 (s, 1H), 8.32 (s, 1H), 7.76-7.70 (m, 2H), 7.59 (s, 2H), 7.40-7.22 (m, 2H), 7.21 (d, $J = 9.0$ Hz, 2H), 6.96-6.94 (m, 1H), 6.46 (d, $J = 9.0$ Hz, 2H), 3.74 (t, $J = 5.7$ Hz, 2H), 2.64 (t, $J = 5.7$ Hz, 2H), 2.41 (m, 4H), 1.49 (m, 4H) ppm; MS (ES)

20 475.04 (M+H), 473.14 (M-H);

5-amino-1-(4-(thien-3-yl)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-

yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #314), pale yellow solid; $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 9.07 (s, 1H), 8.23 (d, $J = 8.4$ Hz, 2H), 8.10 (t, $J = 2.1$ Hz, 1H), 7.91 (d, $J = 8.7$ Hz, 2H), 7.77 (s, 2H), 7.69 (m, 1H), 7.42 (d, $J = 8.7$ Hz, 2H), 6.83 (d, $J = 8.7$ Hz, 2H), 3.99 (t, $J = 6.0$ Hz, 2H), 2.80 (t, $J = 6.0$ Hz, 2H), 2.56 (m, 4H), 1.68 (m, 4H) ppm; MS (ES) 475.04 (M+H), 473.24 (M-H);

5-amino-1-(4-(*tert*-butyl)phenyl)carbonyl-3-[3-methoxy-4-[2-(pyrrolidin-1-

yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #315), off-white solid; $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 9.10 (s, 1H), 8.08 (d, $J = 8.1$ Hz, 2H), 7.77 (s, 2H), 7.51 (d, $J = 8.1$ Hz, 2H), 7.50 (s, 1H), 6.85-6.77 (m, 2H), 3.98 (t, $J = 6.0$ Hz, 2H), 3.62 (s, 3H), 2.89 (t, $J = 6.0$ Hz, 2H), 2.69 (m, 4H), 1.73 (m, 4H), 1.31 (s, 9H) ppm; MS (ES) 479.13 (M+H), 477.30 (M-H);

5-amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-3-[3-methoxy-4-[2-(pyrrolidin-1-

yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #316), off-white solid; $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 9.06 (s, 1H), 8.22 (d, $J = 8.4$ Hz, 2H), 7.71 (s, 2H), 7.42 (d, $J = 1.8$

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Hz, 1H), 7.01 (d, $J = 8.7$ Hz, 2H), 6.85-6.77 (m, 2H), 4.75 (sept., $J = 2.7$ Hz, 1H), 3.97 (t, $J = 6.0$ Hz, 2H), 3.68 (s, 3H), 2.82 (t, $J = 6.0$ Hz, 2H), 2.60 (m, 4H), 1.70 (m, 4H), 1.31 (d, $J = 2.7$ Hz, 6H) ppm; MS (ES) 481.08 (M+H);

5-amino-1-(4-(*tert*-butoxy)phenyl)carbonyl-3-[3-methoxy-4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #317), off-white solid; $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 9.10 (s, 1H), 8.22 (s, 1H), 8.18 (d, $J = 8.7$ Hz, 2H), 7.77 (s, 2H), 7.51 (d, $J = 8.1$ Hz, 2H), 7.45 (s, 1H), 7.08 (d, $J = 8.7$ Hz, 2H), 6.84 (s, 2H), 3.99 (t, $J = 6.0$ Hz, 2H), 3.67 (s, 3H), 2.91 (t, $J = 6.0$ Hz, 2H), 2.69 (m, 4H), 1.73 (m, 4H), 1.31 (s, 9H) ppm; MS (ES) 495.11 (M+H), 493.29 (M-H);

5-amino-1-(1H-indol-6-yl)carbonyl-3-[3-methoxy-4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #318), pale yellow solid; $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 11.54 (s, 1H), 9.06 (s, 1H), 8.42 (s, 1H), 8.20 (s, 1H), 7.84 (d, $J = 7.5$ Hz, 1H), 7.72-7.59 (m, 4H), 7.43 (d, $J = 2.1$ Hz, 1H), 6.91 (dd, $J = 7.5, 2.1$ Hz, 1H), 6.84 (d, $J = 9.0$ Hz, 1H), 6.53 (s, 1H), 3.97 (t, $J = 6.0$ Hz, 2H), 3.51 (s, 3H), 2.86 (t, $J = 6.0$ Hz, 2H), 2.65 (m, 4H), 1.71 (m, 4H) ppm; MS (ES) 462.08 (M+H), 460.22 (M-H);

5-amino-1-(4-(1,2,3-thiadiazol-4-yl)phenyl)carbonyl-3-[3-methoxy-4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #319);

5-amino-1-(4-(*tert*-butyl)phenyl)carbonyl-3-[4-[2-(azepan-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #320), off-white solid; $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 9.03 (s, 1H), 8.17 (s, 1H), 8.14 (d, $J = 8.4$ Hz, 2H), 7.75 (s, 2H), 7.56 (d, $J = 8.4$ Hz, 1H), 7.41 (d, $J = 9.0$ Hz, 2H), 6.81 (d, $J = 8.7$ Hz, 2H), 3.98 (t, $J = 6.0$ Hz, 2H), 2.88 (t, $J = 6.0$ Hz, 2H), 2.74 (m, 4H), 1.59-1.54 (m, 8H), 1.33 (s, 9H) ppm; MS (ES) 477.18 (M+H), 475.33 (M-H);

5-amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-3-[4-[2-(azepan-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #321), pale yellow solid; $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 9.03 (s, 1H), 8.24 (d, $J = 9.0$ Hz, 2H), 8.17 (s, 1H), 7.71 (s, 2H), 7.42 (d, $J = 9.0$ Hz, 2H), 7.05 (d, $J = 9.0$ Hz, 2H), 6.83 (d, $J = 9.0$ Hz, 2H), 4.77 (sept., $J = 6.0$ Hz, 1H), 3.98 (t, $J = 6.0$ Hz, 2H), 2.87 (t, $J = 6.0$ Hz, 2H), 2.73 (t, $J = 5.1$ Hz, 4H), 1.59-1.54 (m, 8H), 1.31 (d, $J = 6.0$ Hz, 6H) ppm; MS (ES) 479.13 (M+H), 477.28 (M-H);

5-amino-1-(4-(*tert*-butoxy)phenyl)carbonyl-3-[4-[2-(azepan-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #322), pale yellow solid; $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 9.03 (s, 1H), 8.17 (s, 1H), 8.16 (d, $J = 8.4$ Hz, 2H), 7.72 (s, 2H), 7.42 (d, $J = 8.7$ Hz, 1H), 7.12 (d, $J = 8.1$ Hz, 2H), 6.82 (d, $J = 8.7$ Hz, 2H), 3.98 (t, $J = 6.0$ Hz, 2H), 2.88 (t, $J = 6.0$ Hz, 2H), 2.74 (t, $J = 5.3$ Hz, 4H), 1.59-1.54 (m, 8H), 1.42 (s, 9H) ppm; MS (ES) 493.16 (M+H), 491.33 (M-H);

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5-amino-1-(1H-indol-6-yl)carbonyl-3-[4-[2-(azepan-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #323), off-white solid; ¹H-NMR (DMSO-*d*₆, 300 MHz) 11.60 (s, 1H), 9.02 (s, 1H), 8.51 (s, 1H), 8.14 (s, 1H), 7.84 (dd, *J* = 8.1, 1.5 Hz, 1H), 7.72 (s, 2H), 7.63-7.60 (m, 2H), 7.46 (d, *J* = 9.0 Hz, 2H), 6.83 (d, *J* = 9.0 Hz, 2H), 6.54 (s, 1H), 3.96 (t, *J* = 6.0 Hz, 2H), 2.84 (t, *J* = 6.0 Hz, 2H), 2.70 (t, *J* = 5.3 Hz, 4H), 1.59-1.54 (m, 8H) ppm; MS (ES) 460.10 (M+H), 458.34 (M-H).

5-amino-1-(4-(1,2,3-thiadiazol-4-yl)phenyl)carbonyl-3-[4-[2-(azepan-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #324), off-white solid; ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.81 (s, 1H), 9.09 (s, 1H), 8.33 (s, 4H), 7.80 (s, 2H), 7.42 (d, *J* = 8.7 Hz, 2H), 6.82 (d, *J* = 8.7 Hz, 2H), 3.96 (t, *J* = 6.0 Hz, 2H), 2.85 (t, *J* = 6.0 Hz, 2H), 2.71 (t, *J* = 5.1 Hz, 4H), 1.59-1.54 (m, 8H) ppm; MS (ES) 505.05 (M+H), 503.23 (M-H);

5-amino-N-(2,4,6-trifluorophenyl)-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole-1-carbothioamide (compound #325), off-white solid; ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.14 (s, 1H), 8.35 (s, 2H), 8.14 (s, 1H), 7.60 (d, *J* = 9.0 Hz, 2H) 7.39-7.32 (m, 2H), 6.81 (d, *J* = 9.0 Hz, 2H), 4.01 (t, *J* = 6.0 Hz, 2H), 2.84 (t, *J* = 6.0 Hz, 2H), 2.60 (m, 4H), 1.71 (m, 4H) ppm; MS (ES) 478.02 (M+H), 476.25 (M-H);

5-amino-N-(2,6-difluorophenyl)-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole-1-carbothioamide (compound #326), off-white solid; ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.13 (s, 1H), 8.35 (s, 2H), 8.16 (s, 1H), 7.60 (d, *J* = 9.0 Hz, 2H) 7.47-7.36 (m, 2H), 7.22 (t, *J* = 8.0 Hz, 2H), 6.80 (d, *J* = 9.0 Hz, 2H), 4.00 (t, *J* = 6.0 Hz, 2H), 2.81 (t, *J* = 6.0 Hz, 2H), 2.57 (m, 4H), 1.69 (m, 4H) ppm; MS (ES) 460.03 (M+H);

5-amino-1-(4-(morpholin-4-yl)phenyl)carbonyl-3-[4-[2-(isoindolin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #327), yellow solid; ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.00 (s, 1H), 8.25 (d, *J* = 9.3 Hz, 2H), 8.14 (s, 1H), 7.66 (s, 2H), 7.47 (d, *J* = 9.0 Hz, 2H), 7.23-7.14 (m, 4H), 7.03 (d, *J* = 9.0 Hz, 2H), 6.88 (d, *J* = 9.3 Hz, 2H), 4.07 (t, *J* = 5.7 Hz, 2H), 3.93 (s, 4H), 3.74 (t, *J* = 4.8 Hz, 4H), 3.33 (t, *J* = 4.8 Hz, 4H), 3.04 (t, *J* = 5.7 Hz, 2H) ppm; MS (ES) 526.10 (M+H);

5-amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-3-[4-[2-(isoindolin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #328), off-white solid; ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.03 (s, 1H), 8.24 (d, *J* = 9.0 Hz, 2H), 8.14 (s, 1H), 7.70 (s, 2H), 7.44 (d, *J* = 9.0 Hz, 2H), 7.22-7.17 (m, 4H), 7.06 (d, *J* = 9.0 Hz, 2H), 6.88 (d, *J* = 9.0 Hz, 2H), 4.77 (sept., *J* = 6.0 Hz, 1H), 4.07 (t, *J* = 5.7 Hz, 2H), 3.94 (s, 4H), 3.04 (t, *J* = 5.7 Hz, 2H), 1.31 (d, *J* = 6.0 Hz, 6H) ppm; MS (ES) 499.08 (M+H), 497.37 (M-H);

5-amino-1-(4-(*tert*-butoxy)phenyl)carbonyl-3-[4-[2-(isoindolin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #329), off-white solid; ¹H-NMR

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(DMSO- d_6 , 300 MHz) 9.03 (s, 1H), 8.18 (d, $J = 8.7$ Hz, 2H), 8.13 (s, 1H), 7.72 (s, 2H), 7.43 (d, $J = 9.0$ Hz, 2H), 7.20-7.11 (m, 6H), 6.85 (d, $J = 9.0$ Hz, 2H), 4.07 (t, $J = 5.7$ Hz, 2H), 3.94 (s, 4H), 3.04 (t, $J = 5.7$ Hz, 2H), 1.41 (s, 9H) ppm; MS (ES) 513.11 (M+H), 511.27 (M-H);

5 5-amino-1-(1H-indol-6-yl)carbonyl-3-[4-[2-(isoindolin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #330), off-white solid; $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 11.61 (s, 1H), 9.02 (s, 1H), 8.52 (s, 1H), 8.18 (s, 2H), 7.84 (dd, $J = 8.3, 1.4$ Hz, 1H), 7.72 (s, 2H), 7.66-7.42 (m, 4H), 7.22-7.14 (m, 2H), 6.87 (d, $J = 8.7$ Hz, 2H), 6.54 (s, 1H), 4.07 (t, $J = 5.7$ Hz, 2H), 3.93 (s, 4H), 3.03 (t, $J = 5.7$ Hz, 2H), 2.97 (s, 4H) ppm; MS (ES) 480.04
10 (M+H), 478.25 (M-H);

5-amino-1-(3-(morpholin-4-yl)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #331), off-white solid; $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 9.06 (s, 1H), 8.19 (s, 2H), 7.77 (d, $J = 12.0$, 2H), 7.65-7.21 (m, 4H), 6.77 (d, $J = 9.0$ Hz, 2H), 3.97 (t, $J = 5.7$ Hz, 2H), 3.73 (m, 4H), 3.16 (m, 4H), 2.76 (t, $J =$
15 5.7 Hz, 2H), 2.53 (m, 4H), 1.67 (m, 4H) ppm; MS (ES) 478.08 (M+H), 476.31 (M-H);

5-amino-1-[4-(2-(morpholin-4-yl)ethoxy)phenyl]carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #332), off-white solid; $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 9.06 (s, 1H), 8.25 (d, $J = 9.0$ Hz, 2H), 7.72 (s, 2H), 7.44 (d, $J = 9.0$ Hz, 2H), 7.09 (d, $J = 9.0$ Hz, 2H), 6.85 (d, $J = 9.0$ Hz, 2H), 4.20 (t, $J = 5.6$ Hz, 2H), 4.06
20 (t, $J = 5.7$ Hz, 2H), 3.57 (m, 4H), 3.00 (t, $J = 5.6$ Hz, 2H), 2.78-2.69 (m, 6H), 1.76 (m, 4H) ppm; MS (ES) 522.08 (M+H), 520.22 (M-H);

5-amino-1-(4-(iso-propoxy)phenyl)carbonyl-3-(phenylamino)-1H-1,2,4-triazole (compound #333), off-white solid; $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 9.25 (s, 1H), 8.23 (d, $J = 8.7$ Hz, 2H), 7.74 (s, 2H), 7.52 (d, $J = 8.4$ Hz, 2H), 7.22 (t, $J = 5.1$ Hz, 2H), 7.06 (d, $J =$
25 8.7 Hz, 2H), 6.83 (t, $J = 7.5$ Hz, 1H), 4.79 (sept., $J = 6.0$ Hz, 1H), 1.32 (d, $J = 6.0$ Hz, 6H) ppm; MS (ES) 338.05 (M+H);

5-amino-1-(4-(1,2,3-thiadiazol-4-yl)phenyl)carbonyl-3-(phenylamino)-1H-1,2,4-triazole (compound #334), off-white solid; off-white solid; $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 9.83 (s, 1H), 9.31 (s, 1H), 8.33 (s, 4H), 7.84 (s, 2H) 7.51 (d, $J = 8.1$ Hz, 2H), 7.20 (t, $J =$
30 7.7 Hz, 2H), 6.82 (t, $J = 7.7$ Hz, 1H) ppm; MS (ES) 364.02 (M+H), 362.07 (M-H);

5-amino-1-(4-(morpholin-4-yl)phenyl)carbonyl-3-(phenylamino)-1H-1,2,4-triazole (compound #335), off-white solid; $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 9.23 (s, 1H), 8.24 (d, $J = 9.3$ Hz, 2H), 7.71 (s, 2H), 7.53 (d, $J = 7.8$ Hz, 2H), 7.23 (t, $J = 8.0$ Hz, 2H), 7.04 (d, $J =$
35 9.0 Hz, 2H), 6.83 (t, $J = 7.4$ Hz, 1H), 3.75 (t, $J = 4.8$ Hz, 4H), 3.34 (t, $J = 4.8$ Hz, 4H) ppm; MS (ES) 365.08 (M+H);

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5-amino-1-(3-(morpholin-4-yl)phenyl)carbonyl-3-(phenylamino)-1H-1,2,4-triazole (compound #336), off-white solid; ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.28 (s, 1H), 7.79 (s, 2H), 7.58-7.25 (m, 6H), 7.17 (t, *J* = 8.0 Hz, 2H), 6.83 (t, *J* = 7.2 Hz, 1H), 3.74 (m, 4H), 3.18 (m, 4H) ppm; MS (ES) 365.07 (M+H), 363.26 (M-H);

5 5-amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-3-[4-[2-(pyrrolidin-2-on-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #337), off-white solid; ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.05 (s, 1H), 8.24 (d, *J* = 9.0 Hz, 2H), 7.72 (s, 2H), 7.43 (d, *J* = 9.0 Hz, 2H), 7.08 (d, *J* = 9.0 Hz, 2H), 6.84 (d, *J* = 9.0 Hz, 2H), 4.79 (sept., *J* = 6.0 Hz, 1H), 4.00 (t, *J* = 5.6 Hz, 2H), 3.50 (t, *J* = 5.7 Hz, 2H), 3.41 (t, *J* = 6.9 Hz, 2H), 2.21 (t, *J* = 8.1 Hz, 2H), 1.91 (t, *J* = 7.7 Hz, 2H), 1.32 (d, *J* = 6.0 Hz, 6H) ppm; MS (ES) 465.07 (M+H);

10 5-amino-1-(4-(1,2,3-thiadiazol-4-yl)phenyl)carbonyl-3-[4-[2-(pyrrolidin-2-on-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #338), off-white solid; ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.82 (s, 1H), 9.12 (s, 1H), 8.33 (s, 4H), 7.82 (s, 2H), 7.43 (d, *J* = 9.0 Hz, 2H), 6.83 (d, *J* = 9.0 Hz, 2H), 3.98 (t, *J* = 5.4 Hz, 2H), 3.48 (t, *J* = 5.6 Hz, 2H), 3.41 (t, *J* = 6.9 Hz, 2H), 2.20 (t, *J* = 8.1 Hz, 2H), 1.89 (quint., *J* = 7.5 Hz, 2H) ppm; MS (ES) 491.01 (M+H), 489.18 (M-H);

20 5-amino-1-(4-(morpholin-4-yl)phenyl)carbonyl-3-[4-[2-(pyrrolidin-2-on-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #339), off-white solid; ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.03 (s, 1H), 8.25 (d, *J* = 8.4 Hz, 2H), 7.68 (s, 2H), 7.46 (d, *J* = 8.7 Hz, 2H), 7.04 (d, *J* = 8.7 Hz, 2H), 6.86 (d, *J* = 8.4 Hz, 2H), 4.00 (t, *J* = 5.4 Hz, 2H), 3.75 (m, 4H), 3.51 (t, *J* = 5.6 Hz, 2H), 3.44 (t, *J* = 6.9 Hz, 2H), 3.32 (m, 4H), 2.22 (m, 2H), 1.91 (m, 2H) ppm; MS (ES) 492.07 (M+H), 490.13 (M-H);

25 5-amino-1-(3-(morpholin-4-yl)phenyl)carbonyl-3-[4-[2-(pyrrolidin-2-on-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #340), off-white solid; ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.08 (s, 1H), 7.77 (s, 2H), 7.51 (d, *J* = 8.4 Hz, 1H), 7.44-7.39 (m, 3H), 7.23 (d, *J* = 8.4 Hz, 1H), 6.78 (d, *J* = 9.0 Hz, 2H), 3.99 (t, *J* = 5.1 Hz, 2H), 3.74 (m, 4H), 3.50 (t, *J* = 5.1 Hz, 2H), 3.43 (t, *J* = 6.9 Hz, 2H), 3.17 (m, 4H), 2.21 (t, *J* = 8.1 Hz, 2H), 1.90 (quint., *J* = 7.5 Hz, 2H) ppm; MS (ES) 492.06 (M+H);

30 5-amino-1-(4-(*tert*-butoxy)phenyl)carbonyl-3-(phenylamino)-1H-1,2,4-triazole (compound #341), pale yellow solid; ¹H-NMR (DMSO-*d*₆, 300 MHz) 10.17 (s, 1H), 9.25 (s, 1H), 8.16 (d, *J* = 8.0 Hz, 2H), 7.75 (s, 2H), 7.51 (d, *J* = 7.5 Hz, 2H), 7.20 (t, *J* = 8.0 Hz, 2H), 7.13 (d, *J* = 9.0 Hz, 2H), 6.82 (t, *J* = 7.4 Hz, 1H), 1.41 (s, 9H) ppm; MS (ES) 352.08 (M+H), 350.16 (M-H);

35 5-amino-1-(4-(*tert*-butoxy)phenyl)carbonyl-3-[4-[2-(pyrrolidin-2-on-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #342), off-white solid; ¹H-NMR

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(DMSO-*d*₆, 300 MHz) 9.06 (s, 1H), 8.18 (d, *J* = 8.4 Hz, 2H), 7.73 (s, 2H), 7.42 (d, *J* = 8.7 Hz, 2H), 7.12 (d, *J* = 9.0 Hz, 2H), 6.83 (d, *J* = 8.7 Hz, 2H), 3.99 (t, *J* = 5.6 Hz, 2H), 3.50 (t, *J* = 5.4 Hz, 2H), 3.43 (t, *J* = 6.9 Hz, 2H), 2.21 (t, *J* = 8.0 Hz, 2H), 1.91 (t, *J* = 7.5 Hz, 2H), 1.42 (s, 9H) ppm; MS (ES) 479.07 (M+H), 477.25 (M-H);

5 5-amino-1-(4-(morpholin-4-yl)phenyl)carbonyl-3-[3-methoxy-4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #343), off-white solid; ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.06 (s, 1H), 8.26-8.21 (m, 2H), 7.69 (s, 2H), 7.46-7.36 (m, 1H), 6.99 (d, *J* = 8.7 Hz, 2H), 6.87-6.84 (m, 1H), 3.99 (m, 2H), 3.75 (m, 4H), 3.70 (s, 3H), 3.31 (t, *J* = 4.7 Hz, 4H), 2.89 (t, *J* = 6.0 Hz, 2H), 2.68 (m, 4H), 1.73 (m, 4H) ppm; MS (ES)
10 441.07 (M+H), 439.25 (M-H);

5-amino-1-(3-(morpholin-4-yl)phenyl)carbonyl-3-[3-methoxy-4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #344), off-white solid; ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.10 (s, 1H), 8.22 (s, 1H), 7.76 (s, 2H), 7.62 (s, 1H), 7.55 (d, *J* = 7.5 Hz, 1H), 7.43-7.14 (m, 1H), 6.98-6.91 (m, 2H), 6.81 (d, *J* = 8.7 Hz, 2H), 4.00 (t, *J* = 6.8 Hz, 2H), 3.73 (m, 4H), 3.60 (s, 3H), 3.14 (m, 4H), 2.96 (m, 2H), 2.76 (m, 4H), 1.75 (m, 4H) ppm; MS (ES) 441.07 (M+H), 439.26 (M-H);

3-amino-1-(4-(*tert*-butoxy)phenyl)carbonyl-5-[(3-(aminocarbonyl)bicyclo[2.2.1]hept-5-en-2-yl)amino]-1H-1,2,4-triazole (compound #345), off-white solid; ¹H-NMR (DMSO-*d*₆, 300 MHz) 8.69 (d, *J* = 8.4 Hz, 1H), 8.08 (d, *J* = 8.7 Hz, 2H), 7.59 (br. s, 1H), 7.08 (br. s, 1H), 7.04 (d, *J* = 8.7 Hz, 2H), 6.30-6.28 (m, 1H), 6.23-6.20 (m, 1H), 5.86 (br. s, 2H), 3.91 (t, *J* = 8.1 Hz, 1H), 2.80 (d, *J* = 8.1 Hz, 2H), 2.46-2.40 (m, 1H), 2.15 (d, *J* = 8.1 Hz, 1H), 1.45-1.40 (m, 1H), 1.38 (s, 9H) ppm; MS (ES) 411.14 (M+H), 409.16 (M-H);

5-amino-1-(4-(*tert*-butoxy)phenyl)carbonyl-3-[(5-(aminocarbonyl)bicyclo[2.2.1]hept-2-en-6-yl)amino]-1H-1,2,4-triazole (compound #346), off-white solid; ¹H-NMR (DMSO-*d*₆, 300 MHz) 8.16 (d, *J* = 8.7 Hz, 2H), 7.65 (br. s, 2H), 7.54 (br. s, 1H), 7.07 (d, *J* = 8.4 Hz, 2H), 7.04 (br. s, 1H), 6.25-6.21 (m, 1H), 6.20-6.14 (m, 1H), 5.83 (d, *J* = 8.7 Hz, 2H), 3.64 (t, *J* = 8.1 Hz, 1H), 2.80 (d, *J* = 12.9 Hz, 2H), 2.44-2.40 (m, 1H), 2.11 (d, *J* = 9.0 Hz, 1H), 1.39 (s, 9H), 1.36-1.32 (m, 1H) ppm; MS (ES)
25 411.23 (M+H), 409.16 (M-H);

3-amino-1-(3-(*tert*-butoxy)phenyl)carbonyl-5-[(3-(aminocarbonyl)bicyclo[2.2.1]hept-5-en-2-yl)amino]-1H-1,2,4-triazole (compound #347), off-white solid; ¹H-NMR (DMSO-*d*₆, 300 MHz) 8.71 (d, *J* = 8.4 Hz, 1H), 7.73 (d, *J* = 7.2 Hz, 1H), 7.60 (br. s, 2H), 7.36 (t, *J* = 7.8 Hz, 1H), 7.16 (d, *J* = 8.4 Hz, 2H), 7.10 (br. s, 1H), 6.30-6.28 (m, 1H), 6.23-6.20 (m, 1H), 5.88 (br. s, 2H), 3.90 (t, *J* = 8.1 Hz, 1H), 2.82
35 1H), 6.30-6.28 (m, 1H), 6.23-6.20 (m, 1H), 5.88 (br. s, 2H), 3.90 (t, *J* = 8.1 Hz, 1H), 2.82

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(br. s, 2H), 2.46 – 2.40(m, 1H), 2.16 (d, $J = 7.8$ Hz, 1H), 1.42 (d, $J = 8.7$ Hz, 1H), 1.30 (s, 9H) ppm; MS (ES) 411.20 (M+H), 409.14 (M-H);

5-amino-1-(3-(*tert*-butoxy)phenyl)carbonyl-3-[(5-(aminocarbonyl)bicyclo[2.2.1]hept-2-en-6-yl)amino]-1H-1,2,4-triazole (compound #348),
 5 off-white solid; $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 7.84 (s, 1H), 7.76 (d, $J = 7.2$ Hz, 1H), 7.68 (br. s, 2H), 7.51 (br. s, 1H), 7.41 (t, $J = 7.8$ Hz, 2H), 7.19 (d, $J = 7.8$ Hz, 1H), 7.04 (br. s, 1H), 6.25–6.20 (m, 1H), 6.16–6.12 (m, 1H), 5.88 (d, $J = 9.0$ Hz, 2H), 3.63 (t, $J = 8.1$ Hz, 1H), 2.77 (d, $J = 17.7$ Hz, 2H), 2.41 (d, $J = 8.1$ Hz, 1H), 2.09 (d, $J = 8.4$ Hz, 1H), 1.40 – 1.35 (m, 1H), 1.32 (s, 9H) ppm; MS (ES) 411.18 (M+H), 409.16 (M-H);

10 3-amino-1-(4-(dimethylamino)phenyl)carbonyl-5-[(3-(aminocarbonyl)bicyclo[2.2.1]hept-5-en-2-yl)amino]-1H-1,2,4-triazole (compound #349),
 pale yellow solid; $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 8.65 (d, $J = 8.4$ Hz, 1H), 8.17 (d, $J = 9.0$ Hz, 2H), 7.55 (br. s, 1H), 7.05 (br. s, 1H), 6.68 (d, $J = 9.3$ Hz, 2H), 6.29 (dd, $J = 5.4$, 2.1 Hz, 1H), 6.21 (dd, $J = 5.4$, 2.1 Hz, 1H), 5.77 (br. s, 2H), 3.92 (t, $J = 8.4$ Hz, 1H), 3.00
 15 (s, 6H), 2.78 (d, $J = 12.6$ Hz, 2H), 2.49–2.47 (m, 1H), 2.15 (d, $J = 9.0$ Hz, 1H), 1.41 (d, $J = 9.0$ Hz, 1H) ppm; MS (ES) 382.15 (M+H), 380.13 (M-H);

5-amino-1-(4-(dimethylamino)phenyl)carbonyl-3-[(5-(aminocarbonyl)bicyclo[2.2.1]hept-2-en-6-yl)amino]-1H-1,2,4-triazole (compound #350),
 off-white solid; $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 8.22 (d, $J = 8.7$ Hz, 2H), 7.55 (br. s, 2H),
 20 7.54 (br. s, 1H), 7.03 (br. s, 1H), 6.72 (d, $J = 9.0$ Hz, 2H), 6.22 (br. s, 2H), 5.74 (d, $J = 9.3$ Hz, 1H), 3.66 (t, $J = 9.0$ Hz, 1H), 3.01 (s, 6H), 2.75 (d, $J = 9.6$ Hz, 2H), 2.44 (d, $J = 8.4$ Hz, 1H), 2.11 (d, $J = 8.4$ Hz, 1H), 1.35 (d, $J = 8.4$ Hz, 9H) ppm; MS (ES) 382.16 (M+H), 380.23 (M-H);

3-amino-1-(3-(dimethylamino)phenyl)carbonyl-5-[(3-(aminocarbonyl)bicyclo[2.2.1]hept-5-en-2-yl)amino]-1H-1,2,4-triazole (compound #351),
 25 yellow solid; $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 8.69 (d, $J = 8.4$ Hz, 1H), 7.60 (br. s, 1H), 7.33 (d, $J = 8.1$ Hz, 1H), 7.26 (s, 1H), 7.22 (d, $J = 8.7$ Hz, 1H), 7.09 (br. s, 1H), 6.89 (dm, $J = 7.2$ Hz, 1H), 7.10 (br. s, 1H), 6.31 (dd, $J = 8.4$, 3.3 Hz, 1H), 6.22 (dd, $J = 8.4$, 3.0 Hz, 1H), 5.83 (br. s, 2H), 3.90 (t, $J = 7.5$ Hz, 1H), 2.91 (s, 6H), 2.80 (d, $J = 6.3$ Hz, 2H), 2.49–
 30 2.47 (m, 1H), 2.16 (d, $J = 8.7$ Hz, 1H), 1.42 (d, $J = 6.3$ Hz, 1H) ppm; MS (ES) 382.16 (M+H), 380.25 (M-H);

5-amino-1-(3-(dimethylamino)phenyl)carbonyl-3-[(5-(aminocarbonyl)bicyclo[2.2.1]hept-2-en-6-yl)amino]-1H-1,2,4-triazole (compound #352),
 pale yellow solid; $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 7.65 (br. s, 2H), 7.59 (s, 1H), 7.52 (br.
 35 s, 1H), 7.35 (d, $J = 8.1$ Hz, 1H), 7.28 (t, $J = 7.8$ Hz, 1H), 7.04 (br. s, 1H), 6.94 (d, $J = 8.4$

Hz, 1H), 6.23 (dd, $J = 5.4, 2.7$ Hz, 1H), 6.11 (dd, $J = 5.4, 3.0$ Hz, 1H), 5.86 (d, $J = 9.0$ Hz, 1H), 3.61 (t, $J = 9.6$ Hz, 1H), 2.93 (s, 6H), 2.74 (d, $J = 8.4$ Hz, 2H), 2.41 (d, $J = 7.2$ Hz, 1H), 2.08 (d, $J = 8.4$ Hz, 1H), 1.35 (d, $J = 9.0$ Hz, 1H) ppm; MS (ES) 382.23 (M+H), 380.55 (M-H);

5 3-amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-5-[(3-(aminocarbonyl)bicyclo[2.2.1]hept-5-en-2-yl)amino]-1H-1,2,4-triazole (compound #353), off-white solid; $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 8.68 (d, $J = 8.7$ Hz, 1H), 8.15 (d, $J = 8.7$ Hz, 2H), 7.58 (br. s, 1H), 7.07 (br. s, 1H), 6.96 (d, $J = 8.7$ Hz, 2H), 6.30–6.24 (m, 1H), 6.24–6.17 (m, 1H), 5.85 (br. s, 2H), 4.72 (quint. $J = 5.4$ Hz, 1H), 3.92 (t, $J = 7.2$ Hz, 1H), 10 2.79 (d, $J = 8.7$ Hz, 2H), 2.50–2.46 (m, 1H), 2.15 (d, $J = 8.7$ Hz, 1H), 1.41 (d, $J = 7.2$ Hz, 1H), 1.28 (d, $J = 5.4$ Hz, 6H) ppm; MS (ES) 397.15 (M+H), 395.15 (M-H);

5-amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-3-[(5-(aminocarbonyl)bicyclo[2.2.1]hept-2-en-6-yl)amino]-1H-1,2,4-triazole (compound #354), off-white solid; $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 8.21 (d, $J = 8.7$ Hz, 1H), 7.63 (br. s, 2H), 15 7.53 (br. s, 1H), 7.03 (br. s, 1H), 7.01 (d, $J = 9.0$ Hz, 2H), 6.24–6.16 (m, 2H), 5.82 (d, $J = 9.0$ Hz, 2H), 4.74 (quint. $J = 6.0$ Hz, 1H), 3.64 (t, $J = 8.1$ Hz, 1H), 2.74 (d, $J = 9.3$ Hz, 2H), 2.43 (d, $J = 8.7$ Hz, 1H), 2.10 (d, $J = 7.5$ Hz, 1H), 1.35 (d, $J = 9.4$ Hz, 1H), 1.29 (d, $J = 5.7$ Hz, 6H) ppm; MS (ES) 397.23 (M+H), 395.08 (M-H);

3-amino-1-(1H-indol-6-yl)carbonyl-5-[(3-(aminocarbonyl)bicyclo[2.2.1]hept-5-en-2-yl)amino]-1H-1,2,4-triazole (compound #355), off-white solid; $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 11.49 (s, 1H), 8.72 (d, $J = 8.7$ Hz, 1H), 8.37 (s, 1H), 7.74 (d, $J = 8.1$ Hz, 1H), 7.57 (d, $J = 7.8$ Hz, 2H), 7.56 (s, 1H), 7.09 (br. s, 1H), 6.49 (br. s, 1H), 6.32 – 6.27 (m, 1H), 6.26 – 6.20 (m, 1H), 5.82 (br. s, 2H), 3.94 (t, $J = 9.0$ Hz, 1H), 2.82 (br. s, 2H), 2.52 (br. s, 1H), 2.18 (d, $J = 8.7$ Hz, 1H), 1.43 (d, $J = 8.1$ Hz, 1H) ppm; MS (ES) 377.98 (M+H), 25 376.09 (M-H);

5-amino-1-(1H-indol-6-yl)carbonyl-3-[(5-(aminocarbonyl)bicyclo[2.2.1]hept-2-en-6-yl)amino]-1H-1,2,4-triazole (compound #356), pale yellow solid; $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 11.54 (s, 1H), 8.52 (s, 1H), 7.77 (d, $J = 8.4$ Hz, 1H), 7.66 (br. s, 2H), 7.62–7.55 (m, 3H), 7.05 (br. s, 1H), 6.51 (br. s, 1H), 6.21 (s, 2H), 5.80 (d, $J = 9.3$ Hz, 1H), 3.67 (t, $J = 9.3$ Hz, 1H), 2.76 (br. s, 2H), 2.44 (d, $J = 8.7$ Hz, 1H), 2.12 (d, $J = 8.7$ Hz, 1H), 1.36 (d, $J = 8.7$ Hz, 1H) ppm; MS (ES) 378.16 (M+H), 376.15 (M-H);

5-amino-1-(4-(*tert*-butoxy)phenyl)carbonyl-3-[4-(4-methylpiperazin-1-yl)phenylamino]-1H-1,2,4-triazole (compound #357), pale yellow solid; $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 8.95 (s, 1H), 8.18 (d, $J = 9.0$ Hz, 2H), 7.71 (br. s, 2H), 7.37 (d, $J = 8.4$ Hz, 2H), 7.12 (d, $J = 9.0$ Hz, 2H), 6.82 (d, $J = 8.7$ Hz, 2H), 3.05–2.95 (m, 4H), 2.45–2.40 (m, 35

4H), 2.21 (s, 3H), 1.42 (s, 9H) ppm; MS (ES) 450.27 (M+H), 448.07 (M-H);

5-amino-1-(3-(*tert*-butoxy)phenyl)carbonyl-3-[4-(4-methylpiperazin-1-yl)phenylamino]-1H-1,2,4-triazole (compound #358), pale yellow solid; ¹H-NMR (DMSO-*d*₆, 300 MHz) 8.99 (s, 1H), 7.84 (d, *J* = 7.5 Hz, 1H), 7.79 (s, 1H), 7.75 (br. s, 2H), 7.45 (t, *J* = 8.1 Hz, 1H), 7.36 (d, *J* = 9.0 Hz, 2H), 7.25 (dm, *J* = 8.1 Hz, 1H), 6.79 (d, *J* = 9.0 Hz, 2H), 3.02 (t, *J* = 4.8 Hz, 4H), 2.56 (t, *J* = 4.5 Hz, 4H), 2.29 (s, 3H), 1.33 (s, 9H) ppm; MS (ES) 450.39 (M+H), 448.52 (M-H);

5-amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-3-[4-(4-methylpiperazin-1-yl)phenylamino]-1H-1,2,4-triazole (compound #359), pale yellow solid; ¹H-NMR (DMSO-*d*₆, 300 MHz) 8.99 (s, 1H), 8.24 (d, *J* = 9.3 Hz, 2H), 7.70 (br. s, 2H), 7.40 (d, *J* = 8.4 Hz, 2H), 7.05 (d, *J* = 9.0 Hz, 2H), 6.87 (d, *J* = 9.0 Hz, 2H), 4.78 (quint. *J* = 6.0 Hz, 1H), 3.13 (br. s, 4H), 2.85 (br. s, 4H), 2.53 (s, 3H), 1.32 (d, *J* = 6.0 Hz, 6H) ppm; MS (ES) 436.63 (M+H), 434.71 (M-H);

3-amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-5-(4-(4-methylpiperazin-1-yl)phenylamino)-1H-1,2,4-triazole (compound #360), pale yellow solid; ¹H-NMR (DMSO-*d*₆, 300 MHz) 10.01 (s, 1H), 8.22 (d, *J* = 8.7 Hz, 2H), 7.56 (d, *J* = 8.7 Hz, 2H), 7.02 (d, *J* = 8.7 Hz, 2H), 6.92 (d, *J* = 8.7 Hz, 2H), 4.76 (quint. *J* = 6.0 Hz, 1H), 3.09 (br. s, 4H), 2.44 (br. s, 4H), 2.21 (s, 3H), 1.30 (d, *J* = 6.0 Hz, 6H) ppm; MS (ES) 436.63 (M+H);

5-amino-1-(4-(dimethylamino)phenyl)carbonyl-3-[4-(4-methylpiperazin-1-yl)phenylamino]-1H-1,2,4-triazole (compound #361), pale yellow solid; ¹H-NMR (DMSO-*d*₆, 300 MHz) 8.90 (s, 1H), 8.26 (d, *J* = 7.8 Hz, 2H), 7.63 (br. s, 2H), 7.41 (d, *J* = 8.4 Hz, 2H), 6.85 (d, *J* = 8.4 Hz, 2H), 6.77 (d, *J* = 8.7 Hz, 2H), 3.03-2.98 (m, 4H), 2.94 (s, 3H), 2.93 (s, 3H), 2.50-2.42 (m, 4H), 2.21 (s, 3H) ppm; MS (ES) 421.67 (M+H), 419.62 (M-H);

3-amino-1-(4-(dimethylamino)phenyl)carbonyl-5-(4-(4-methylpiperazin-1-yl)phenylamino)-1H-1,2,4-triazole (compound #362), yellow solid; ¹H-NMR (DMSO-*d*₆, 300 MHz) 10.12 (s, 1H), 8.25 (d, *J* = 9.0 Hz, 2H), 7.55 (d, *J* = 8.1 Hz, 2H), 6.91 (d, *J* = 9.0 Hz, 2H), 6.72 (d, *J* = 9.0 Hz, 2H), 5.95 (br. s, 2H), 3.12-3.04 (m, 4H), 3.03 (s, 6H), 2.48-2.40 (m, 4H), 2.21 (s, 3H) ppm; MS (ES) 421.65 (M+H);

5-amino-1-(3-(dimethylamino)phenyl)carbonyl-3-[4-(4-methylpiperazin-1-yl)phenylamino]-1H-1,2,4-triazole (compound #363), pale yellow solid; ¹H-NMR (DMSO-*d*₆, 300 MHz) 8.97 (s, 1H), 7.73 (br. s, 2H), 7.58 (s, 1H), 7.38 (d, *J* = 8.7 Hz, 2H), 7.31 (d, *J* = 7.5 Hz, 1H), 7.19 (t, *J* = 8.4 Hz, 1H), 6.98 (d, *J* = 8.4 Hz, 1H), 6.77 (d, *J* = 8.7 Hz, 2H), 3.04-2.96 (m, 4H), 2.96 (s, 6H), 2.50-2.46 (m, 4H), 2.23 (s, 3H) ppm; MS (ES) 421.79 (M+H), 419.62 (M-H);

3-amino-1-(3-(dimethylamino)phenyl)carbonyl-5-(4-(4-methylpiperazin-1-

FIG. 10 is a mass spectrum of compound #364.

yl)phenylamino]-1H-1,2,4-triazole (compound #364), pale yellow solid; ¹H-NMR (DMSO-*d*₆, 300 MHz) 10.30 (s, 1H), 7.30-7.25 (m, 2H), 7.20-7.15 (m, 4H), 6.90 (dm, *J* = 8.4 Hz, 2H), 6.51 (s, 2H), 3.36-3.30 (m, 4H), 2.94 (s, 6H), 2.53 (s, 3H), 2.50-2.46 (m, 4H) ppm; MS (ES) 421.73 (M+H);

5 5-amino-1-(bicyclo[2.2.1]heptan-2-yl)carbonyl-3-[4-(4-methylpiperazin-1-yl)phenylamino]-1H-1,2,4-triazole (compound #365), pale yellow solid; ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.67 (s, 1H), 8.21 (br. s, 2H), 7.53 (d, *J* = 8.7 Hz, 2H), 6.88 (d, *J* = 8.7 Hz, 2H), 3.12-3.04 (m, 4H), 2.45-2.37 (m, 4H), 2.30-2.26 (m, 1H), 2.20 (s, 3H), 1.68-1.24 (m, 10H) ppm; MS (ES) 396.69 (M+H), 394.65 (M-H);

10 5-amino-1-(1H-indol-3-yl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #366), off-white solid; ¹H-NMR (DMSO-*d*₆, 300 MHz) 11.76 (br. s, 3H), 8.00-7.90 (m, 4H), 7.42 (d, *J* = 7.2 Hz, 2H), 7.20-7.05 (m, 4H), 4.10-4.06 (m, 2H), 3.06 (br. s, 2H), 2.52 (br. s, 4H), 1.70-1.62 (m, 4H) ppm; MS (ES) 432.10 (M+H), 430.25 (M-H);

15 5-amino-1-(benzo[b]thiophen-2-yl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #367), yellow solid; ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.28 (s, 1H), 8.70 (s, 1H), 8.15 (d, *J* = 8.1 Hz, 1H), 8.11 (d, *J* = 7.8 Hz, 1H), 7.87 (br. s, 2H), 7.63 (d, *J* = 9.3 Hz, 2H), 7.56 (t, *J* = 7.2 Hz, 1H), 7.48 (t, *J* = 7.2 Hz, 1H), 7.01 (d, *J* = 9.0 Hz, 2H), 4.14 (t, *J* = 5.7 Hz, 2H), 3.10 (br. s, 2H), 2.86 (br. s, 4H),
20 1.86-1.75 (m, 4H) ppm; MS (ES) 449.10 (M+H), 447.18 (M-H);

3-amino-1-(benzo[b]thiophen-2-yl)carbonyl-5-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #368), yellow solid; ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.97 (br. s, 1H), 8.81 (s, 1H), 8.10-8.02 (m, 2H), 7.64 (d, *J* = 9.0 Hz, 2H), 7.60-7.45 (m, 2H), 6.93 (d, *J* = 9.9 Hz, 2H), 6.27 (br. s, 2H), 4.04 (t, *J* = 5.7 Hz, 2H), 2.77 (t, *J* = 5.7 Hz, 2H), 2.60-2.50 (m, 4H), 1.70-1.62 (m, 4H) ppm; MS (ES) 449.05 (M+H), 447.23 (M-H);

5-amino-1-(benzo[b]thiophen-5-yl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #369), pale yellow solid; ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.06 (br. s, 1H), 8.78 (s, 1H), 8.17-8.09 (m, 2H), 7.89 (d, *J* = 4.5 Hz, 1H), 7.78 (br. s, 2H), 7.62 (d, *J* = 4.5 Hz, 1H), 7.42 (d, *J* = 8.7 Hz, 2H), 7.78 (d, *J* = 8.1 Hz, 2H), 3.97 (t, *J* = 5.7 Hz, 2H), 2.77 (t, *J* = 5.7 Hz, 2H), 2.53 (br. s, 4H), 1.68 (br. s, 4H) ppm; MS (ES) 449.05 (M+H), 447.26 (M-H);

5-amino-1-(4-(*tert*-butoxy)phenyl)carbonyl-3-[4-[2-(imidazol-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #370), pale yellow solid; ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.05 (br. s, 1H), 8.16 (d, *J* = 8.7 Hz, 2H), 7.72 (br. s, 2H), 7.65 (s,

1H), 7.41 (d, $J = 9.0$ Hz, 2H), 7.21 (s, 1H), 7.11 (d, $J = 8.4$ Hz, 2H), 6.84 (s, 1H), 6.80 (d, $J = 8.7$ Hz, 2H), 4.30 (t, $J = 4.5$ Hz, 2H), 4.17 (t, $J = 4.5$ Hz, 2H), 1.41(s, 9H) ppm; MS (ES) 462.05 (M+H), 460.24 (M-H);

5-amino-1-(3-(*tert*-butoxy)phenyl)carbonyl-3-[4-[2-(imidazol-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #371), yellow solid; $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 9.07 (br. s, 1H), 7.82 (d, $J = 7.2$ Hz, 1H), 7.75 (br. s, 2H), 7.65 (s, 1H), 7.44 (t, $J = 7.5$ Hz, 1H), 7.38 (d, $J = 8.7$ Hz, 2H), 7.24 (d, $J = 7.5$ Hz, 1H), 7.20 (s, 1H), 6.86 (s, 1H), 6.75 (d, $J = 8.4$ Hz, 2H), 4.49 (t, $J = 4.5$ Hz, 2H), 4.14 (t, $J = 4.5$ Hz, 2H), 1.32 (s, 9H) ppm; MS (ES) 462.05 (M+H), 460.21 (M-H);

5-amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-3-[4-[2-(imidazol-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #372), off-white solid; $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 9.05 (br. s, 1H), 6.22 (d, $J = 9.0$ Hz, 2H), 7.71 (br. s, 2H), 7.65 (s, 1H), 7.42 (d, $J = 9.3$ Hz, 2H), 7.21 (s, 1H), 7.05 (d, $J = 8.7$ Hz, 2H), 6.86 (s, 1H), 6.82 (d, $J = 9.3$ Hz, 2H), 4.78 (quint. $J = 6.0$ Hz, 1H), 4.30 (t, $J = 5.1$ Hz, 2H), 4.16 (t, $J = 5.1$ Hz, 2H), 1.32(d, $J = 6.0$ Hz, 6H) ppm; MS (ES) 448.06 (M+H), 446.22 (M-H);

5-amino-1-(4-(dimethylamino)phenyl)carbonyl-3-[4-[2-(imidazol-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #373), yellow solid; $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 9.00 (br. s, 1H), 8.24 (d, $J = 9.0$ Hz, 2H), 7.67 (s, 1H), 7.63 (br. s, 2H), 7.44 (d, $J = 8.7$ Hz, 2H), 7.22 (s, 1H), 6.88 (s, 1H), 6.82 (d, $J = 9.3$ Hz, 2H), 6.76 (d, $J = 8.7$ Hz, 2H), 4.31 (t, $J = 4.5$ Hz, 2H), 4.16 (t, $J = 4.8$ Hz, 2H), 3.04 (s, 6H) ppm; MS (ES) 433.02 (M+H), 431.21 (M-H);

5-amino-1-(3-(dimethylamino)phenyl)carbonyl-3-[4-[2-(imidazol-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #374), pale yellow solid; $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 9.07 (br. s, 1H), 7.73 (s, 1H), 7.64 (br. s, 2H), 7.55 (s, 1H), 7.42 (d, $J = 8.4$ Hz, 2H), 7.36-7.32 (m, 2H), 7.20 (s, 1H), 6.98-6.90 (s, 1H), 6.75 (d, $J = 8.1$ Hz, 2H), 4.29 (t, $J = 4.5$ Hz, 2H), 4.14 (t, $J = 4.5$ Hz, 2H), 2.95(s, 6H) ppm; MS (ES) 433.02 (M+H), 431.23 (M-H);

5-amino-1-(1H-indol-6-yl)carbonyl-3-[4-[2-(imidazol-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #375), pale brown solid; $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 11.60 (br. s, 1H), 9.05 (br. s, 1H), 8.50 (s, 1H), 7.82 (d, $J = 8.4$ Hz, 1H), 7.72 (br. s, 2H), 7.69-7.62 (m, 2H), 7.45 (d, $J = 8.7$ Hz, 2H), 7.22 (s, 1H), 6.88 (s, 1H), 6.81 (d, $J = 8.4$ Hz, 2H), 6.54 (s, 1H), 4.30 (t, $J = 4.5$ Hz, 2H), 4.15 (t, $J = 4.8$ Hz, 2H) ppm; MS (ES) 429.00 (M+H), 427.18 (M-H);

3-amino-1-(1H-indol-6-yl)carbonyl-5-[4-[2-(imidazol-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #376), pale yellow solid; $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 11.61

(br. s, 1H), 10.10 (br. s, 1H), 9.05 (s, 1H), 8.50 (s, 1H), 7.81 (m, 1H), 7.72-7.63 (m, 2H), 7.45 (d, $J = 8.4$ Hz, 2H), 7.21 (d, $J = 8.1$ Hz, 1H), 6.92 (d, $J = 9.0$ Hz, 1H), 6.81 (d, $J = 8.4$ Hz, 2H), 6.54 (br. s, 1H), 6.00 (br. s, 2H), 4.22 (t, $J = 4.5$ Hz, 2H), 4.14 (t, $J = 4.8$ Hz, 2H) ppm; MS (ES) 429.00 (M+H), 427.17 (M-H);

5 5-amino-1-(benzo[b]thiophen-5-yl)carbonyl-3-[4-[2-(imidazol-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #377), yellow solid; $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 9.09 (br. s, 1H), 8.77 (s, 1H), 8.18-8.06 (m, 3H), 7.89 (br. s, 1H), 7.78 (br. s, 2H), 7.64 (br. s, 2H), 7.41 (d, $J = 8.4$ Hz, 2H), 7.20 (s, 1H), 6.86 (s, 1H), 6.77 (d, $J = 7.8$ Hz, 2H), 4.29 (br. s, 2H), 4.14 (br. s, 2H) ppm; MS (ES) 445.95 (M+H), 444.15 (M-H);

10 3-amino-1-(benzo[b]thiophen-5-yl)carbonyl-5-[4-[2-(imidazol-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #378), yellow solid; $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 9.09 (br. s, 1H), 8.78 (s, 1H), 8.18-8.08 (m, 2H), 7.90 (d, $J = 5.4$ Hz, 1H), 7.78 (br. s, 2H), 7.69 (s, 1H), 7.62 (d, $J = 5.4$ Hz, 1H), 7.42 (d, $J = 9.0$ Hz, 2H), 7.22 (s, 1H), 6.89 (s, 1H), 6.77 (d, $J = 8.7$ Hz, 2H), 4.30 (t, $J = 5.1$ Hz, 2H), 4.15 (t, $J = 5.1$ Hz, 2H) ppm; MS (ES) 445.96 (M+H), 444.14 (M-H);

15 5-amino-1-(benzo[b]thiophen-2-yl)carbonyl-3-[4-[2-(imidazol-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #379), yellow solid; $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 9.27 (br. s, 1H), 8.69 (s, 1H), 8.15 (d, $J = 7.8$ Hz, 1H), 8.10-8.08 (m, 1H), 7.86 (br. s, 2H), 7.71 (s, 1H), 7.61 (d, $J = 9.0$ Hz, 2H), 7.56 (t, $J = 7.8$ Hz, 1H), 7.48 (t, $J = 8.1$ Hz, 1H), 7.25 (s, 1H), 6.96 (d, $J = 8.4$ Hz, 2H), 6.90 (s, 1H), 4.34 (t, $J = 5.1$ Hz, 2H), 4.23 (t, $J = 5.1$ Hz, 2H) ppm; MS (ES) 445.95 (M+H), 444.13 (M-H);

25 5-amino-1-(4-(*tert*-butoxy)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #380), pale yellow solid; $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 10.05 (br. s, 1H), 9.09 (br. s, 1H), 8.17 (d, $J = 7.1$ Hz, 2H), 7.71 (br. s, 2H), 7.45 (d, $J = 6.9$ Hz, 2H), 7.11 (d, $J = 7.1$ Hz, 2H), 6.90 (d, $J = 7.1$ Hz, 2H), 4.22 (br. s, 2H), 3.53 (br. s, 4H), 3.10 (br. s, 2H), 1.97-1.88 (m, 4H), 1.41 (s, 9H) ppm; MS (ES) 465.40 (M+H);

30 5-amino-1-(3-fluoro-4-methoxyphenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #381), pale yellow solid; $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 9.17 (br. s, 1H), 8.20 (d, $J = 13.2$ Hz, 1H), 8.07 (d, $J = 8.4$ Hz, 1H), 7.77 (br. s, 2H), 7.46 (d, $J = 8.7$ Hz, 2H), 7.34 (t, $J = 8.4$ Hz, 1H), 6.90 (d, $J = 8.7$ Hz, 2H), 4.21 (t, $J = 5.1$ Hz, 2H), 3.95 (s, 3H), 3.60-3.50 (br. s, 2H), 3.05-3.15 (m, 4H), 2.02-1.88 (m, 4H) ppm; MS (ES) 441.05 (M+H), 439.20 (M-H);

35 5-amino-1-(4-(morpholin-4-yl)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-

yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #382), pale yellow solid; ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.10 (br. s, 1H), 8.23 (d, *J* = 8.1 Hz, 2H), 7.68 (br. s, 2H), 7.48 (d, *J* = 9.3 Hz, 2H), 7.03 (d, *J* = 8.4 Hz, 2H), 6.92 (t, *J* = 8.1 Hz, 2H), 4.21 (br. s, 2H), 3.75 (br. s, 4H), 3.33 (br. s, 4H), 3.30-3.20 (m, 2H), 3.20-3.05 (m, 4H), 2.02-1.88 (m, 4H) ppm; MS (ES) 478.37 (M+H);

5-amino-1-(4-(4-methylpiperazin-1-yl)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #383), pale yellow solid; ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.11 (br. s, 1H), 8.25 (d, *J* = 8.4 Hz, 2H), 7.71 (br. s, 2H), 7.48 (d, *J* = 8.4 Hz, 2H), 7.11 (d, *J* = 8.4 Hz, 2H), 6.91 (t, *J* = 8.7 Hz, 2H), 4.21-4.12 (m, 4H), 3.55 (br. s, 4H), 3.14 (br. s, 4H), 2.87 (s, 3H), 2.53 (br. s, 4H), 2.02-1.88 (m, 4H) ppm; MS (ES) 491.15 (M+H);

5-amino-1-(4-(*tert*-butoxy)phenyl)carbonyl-3-[4-[2-((*S*)-3-fluoropyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #384), pale yellow solid; ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.02 (br. s, 1H), 8.17 (d, *J* = 8.1 Hz, 2H), 7.74 (br. s, 2H), 7.41 (d, *J* = 8.4 Hz, 2H), 7.11 (d, *J* = 8.1 Hz, 2H), 6.82 (d, *J* = 8.7 Hz, 2H), 3.99 (t, *J* = 5.7 Hz, 2H), 3.00-2.58 (m, 6H), 2.17-2.04 (m, 1H), 1.98-1.65 (m, 2H), 1.41 (s, 9H) ppm; MS (ES) 483.35 (M+H), 481.47 (M-H);

5-amino-1-(4-(dimethylamino)phenyl)carbonyl-3-[4-[2-((*S*)-3-fluoropyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #385), pale yellow solid; ¹H-NMR (DMSO-*d*₆, 300 MHz) 8.97 (br. s, 1H), 8.25 (d, *J* = 9.0 Hz, 2H), 7.63 (br. s, 2H), 7.45 (d, *J* = 8.7 Hz, 2H), 6.85 (d, *J* = 8.7 Hz, 2H), 6.76 (d, *J* = 9.0 Hz, 2H), 4.00 (t, *J* = 5.7 Hz, 2H), 3.05 (s, 6H), 3.00-2.70 (m, 6H), 2.26-2.06 (m, 1H), 1.98-1.78 (m, 2H) ppm; MS (ES) 454.16 (M+H);

5-amino-1-(1,4-benzodioxan-6-yl)carbonyl-3-[4-[2-((*S*)-3-fluoropyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #386), pale yellow solid; ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.03 (br. s, 1H), 7.82 (s, 1H), 7.79 (br. s, 1H), 7.71 (br. s, 2H), 7.42 (d, *J* = 9.0 Hz, 2H), 7.00 (d, *J* = 8.7 Hz, 1H), 6.81 (d, *J* = 8.4 Hz, 2H), 4.33 (d, *J* = 6.3 Hz, 4H), 3.99 (t, *J* = 6.0 Hz, 2H), 2.98-2.68 (m, 6H), 2.26-2.06 (m, 1H), 1.93-1.78 (m, 2H) ppm; MS (ES) 469.33 (M+H), 467.06 (M-H);

3-amino-1-(1,4-benzodioxan-6-yl)carbonyl-5-[4-[2-((*S*)-3-fluoropyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #387), pale yellow solid; ¹H-NMR (DMSO-*d*₆, 300 MHz) 10.01 (br. s, 1H), 8.18 (s, 1H), 7.84 (d, *J* = 8.4 Hz, 1H), 7.79 (br. s, 1H), 7.63 (d, *J* = 9.0 Hz, 2H), 7.92 (d, *J* = 8.7 Hz, 2H), 6.06 (br. s, 2H), 4.33-4.30 (m, 4H), 4.04 (t, *J* = 5.4 Hz, 2H), 2.94-2.71 (m, 6H), 2.18-2.05 (m, 1H), 1.92-1.76 (m, 2H) ppm; MS (ES) 469.19 (M+H), 466.86 (M-H);

Il est recommandé de lire attentivement les instructions avant d'utiliser ce produit.

5-amino-1-(1H-indol-6-yl)carbonyl-3-[4-[2-((S)-3-fluoropyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #388), pale yellow solid; ¹H-NMR (DMSO-*d*₆, 300 MHz) 11.59 (br. s, 1H), 9.01 (br. s, 1H), 8.51 (s, 1H), 7.83 (d, *J* = 8.4 Hz, 1H), 7.71 (br. s, 2H), 7.66-7.61 (m, 2H), 7.46 (d, *J* = 8.4 Hz, 2H), 6.82 (d, *J* = 8.1 Hz, 2H), 6.54 (s, 1H), 3.97 (t, *J* = 5.7 Hz, 2H), 2.94-2.65 (m, 6H), 2.16-2.05 (m, 1H), 1.91-1.76 (m, 2H) ppm; MS (ES) 450.41 (M+H), 448.13 (M-H);

3-amino-1-(1H-indol-6-yl)carbonyl-5-[4-[2-((S)-3-fluoropyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #389), pale yellow solid; ¹H-NMR (DMSO-*d*₆, 300 MHz) 11.54 (br. s, 1H), 9.02 (br. s, 1H), 8.44 (s, 1H), 7.84-7.80 (m, 1H), 7.68 (d, *J* = 9.0 Hz, 2H), 7.46 (d, *J* = 8.7 Hz, 1H), 6.94 (d, *J* = 9.0 Hz, 2H), 6.82 (d, *J* = 8.7 Hz, 1H), 6.54-6.52 (m, 1H), 6.00 (br. s, 2H), 4.97 (t, *J* = 5.7 Hz, 2H), 2.94-2.65 (m, 6H), 2.30-2.00 (m, 1H), 1.93-1.80 (m, 2H) ppm; MS (ES) 450.14 (M+H), 448.12 (M-H);

5-amino-1-(3,5-difluoro-4-methoxyphenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #390), pale yellow solid; ¹H-NMR (DMSO-*d*₆, 300 MHz) 9.10 (br. s, 1H), 8.03 (d, *J* = 9.6 Hz, 2H), 7.80 (br. s, 2H), 7.39 (d, *J* = 8.7 Hz, 1H), 6.80 (d, *J* = 8.7 Hz, 2H), 4.08 (s, 3H), 3.98 (t, *J* = 5.7 Hz, 2H), 2.76 (t, *J* = 5.7 Hz, 2H), 2.49 (br. s, 4H), 1.67 (br. s, 4H) ppm; MS (ES) 459.08 (M+H), 457.22 (M-H);

3-amino-1-(2,6-difluorophenyl)carbonyl-5-(1-methylsulfonylpiperidin-4-yl)amino-1H-1,2,4-triazole (compound #391), off-white solid; ¹H-NMR (DMSO-*d*₆, 300 MHz) 7.64-7.54 (m, 1H), 7.23 (t, *J* = 8.1 Hz, 2H), 6.50 (d, *J* = 7.5 Hz, 1H), 6.02 (br. s, 2H), 3.80-3.65 (m, 1H), 3.59-3.55 (m, 2H), 2.87 (s, 3H), 2.82-2.72 (m, 3H), 2.04-2.01 (m, 2H), 1.87-1.78 (m, 2H) ppm; MS (ES) 401.03 (M+H);

5-amino-1-(2,6-difluorophenyl)carbonyl-3-(1-methylsulfonylpiperidin-4-yl)amino-1H-1,2,4-triazole (compound #392), off-white solid; ¹H-NMR (DMSO-*d*₆, 300 MHz) 7.74 (br. s, 2H), 7.64-7.52 (m, 1H), 7.23 (t, *J* = 8.7, 7.8 Hz, 2H), 6.50 (d, *J* = 7.2 Hz, 1H), 3.74-3.41 (m, 2H), 2.80 (s, 3H), 2.76-2.73 (m, 3H), 1.87-1.82 (m, 2H), 1.50-1.36 (m, 2H) ppm; MS (ES) 401.03 (M+H);

5-amino-1-(4-(*tert*-butoxy)phenyl)carbonyl-3-(1-methylsulfonylpiperidin-4-yl)amino-1H-1,2,4-triazole (compound #393), off-white solid; ¹H-NMR (DMSO-*d*₆, 300 MHz) 8.12 (t, *J* = 8.4, 7.5 Hz, 3H), 7.62 (br. s, 2H), 7.05 (d, *J* = 8.4 Hz, 2H), 3.56-3.44 (m, 2H), 2.84 (s, 3H), 2.85-2.78 (m, 3H), 2.05-1.90 (m, 2H), 1.60-1.45 (m, 2H), 1.39 (s, 9H) ppm; MS (ES) 437.09 (M+H), 435.08 (M-H);

5-amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-3-(1-methylsulfonylpiperidin-4-yl)amino-1H-1,2,4-triazole (compound #394), off-white solid; ¹H-NMR (DMSO-*d*₆, 300 MHz) 8.18 (d, *J* = 8.4 Hz, 2H), 7.82 (br. s, 1H), 7.60 (br. s, 2H), 6.98 (d, *J* = 7.5 Hz, 2H),

4.74 (quint. $J = 5.4$ Hz, 1H), 3.58-3.40 (m, 2H), 2.84 (s, 3H), 2.85-2.78 (m, 3H), 2.05-1.90 (m, 2H), 1.80-1.60 (m, 1H), 1.60-1.42 (m, 1H), 1.29 (s, $J = 5.4$ Hz, 6H) ppm; MS (ES) 423.06 (M+H), 421.06 (M-H);

5-amino-1-(4-(dimethylamino)phenyl)carbonyl-3-(1-methylsulfonylpiperidin-4-yl)amino-1H-1,2,4-triazole (compound #395), off-white solid; $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 8.20 (d, $J = 8.7$ Hz, 2H), 7.53 (br. s, 2H), 6.70 (d, $J = 8.7$ Hz, 2H), 6.26 (d, $J = 7.2$ Hz, 1H), 3.52-3.42 (m, 2H), 3.01 (s, 6H), 2.88-2.78 (m, 3H), 2.84 (s, 3H), 2.00-1.95 (m, 2H), 1.58-1.52 (m, 2H) ppm; MS (ES) 408.08 (M+H), 406.22 (M-H);

3-amino-1-(4-(dimethylamino)phenyl)carbonyl-5-(1-methylsulfonylpiperidin-4-yl)amino-1H-1,2,4-triazole (compound #396), off-white solid; $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 8.20 (d, $J = 9.0$ Hz, 2H), 7.86 (d, $J = 7.5$ Hz, 1H), 6.70 (d, $J = 8.7$ Hz, 2H), 5.78 (br. s, 2H), 3.54-3.45 (m, 2H), 3.01 (s, 6H), 2.90-2.80 (m, 3H), 2.88 (s, 3H), 2.05-1.96 (m, 2H), 1.76-1.50 (m, 2H) ppm; MS (ES) 408.08 (M+H), 406.22 (M-H);

5-amino-1-(1,4-benzodioxan-6-yl)carbonyl-3-(1-methylsulfonylpiperidin-4-yl)amino-1H-1,2,4-triazole (compound #397), off-white solid; $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 7.79 (s, 1H), 7.62 (br. s, 2H), 6.93 (d, $J = 8.7$ Hz, 2H), 6.37 (d, $J = 8.1$ Hz, 1H), 4.26 (dm, $J = 7.5$ Hz, 4H), 3.55-3.44 (m, 2H), 2.88-2.80 (m, 3H), 2.84 (s, 3H), 2.06-1.93 (m, 2H), 1.80-1.65 (m, 1H), 1.58-1.45 (m, 1H) ppm; MS (ES) 423.02 (M+H), 421.07 (M-H);

5-amino-1-(1H-indol-6-yl)carbonyl-3-(1-methylsulfonylpiperidin-4-yl)amino-1H-1,2,4-triazole (compound #398), off-white solid; $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 11.50 (br. s, 1H), 8.42 (d, $J = 9.0$ Hz, 1H), 7.87 (d, $J = 7.5$ Hz, 1H), 7.58 (d, $J = 8.7$ Hz, 1H), 7.57 (br. s, 2H), 6.50 (s, 1H), 3.56-3.46 (m, 2H), 2.86-2.79 (m, 3H), 2.83 (s, 3H), 2.10-1.97 (m, 2H), 1.80-1.68 (m, 1H), 1.60-1.46 (m, 1H) ppm; MS (ES) 404.06 (M+H), 402.14 (M-H);

5-amino-1-(4-(morpholin-4-yl)phenyl)carbonyl-3-(1-methylsulfonylpiperidin-4-yl)amino-1H-1,2,4-triazole (compound #399), off-white solid; $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 8.18 (d, $J = 8.4$ Hz, 2H), 7.56 (br. s, 2H), 6.96 (d, $J = 8.7$ Hz, 2H), 6.30 (d, $J = 7.2$ Hz, 1H), 3.72 (br. s, 4H), 3.50-3.40 (m, 2H), 2.88-2.80 (m, 3H), 2.85 (s, 3H), 2.04-1.92 (m, 2H), 1.60-1.46 (m, 2H) ppm; MS (ES) 450.04 (M+H), 448.21 (M-H);

5-amino-1-(4-(1,1-dioxo-thiomorpholin-4-yl)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #400), pale yellow solid; $^1\text{H-NMR}$ (DMSO- d_6 , 300 MHz) 9.01 (br. s, 1H), 8.23 (d, $J = 6.0$ Hz, 2H), 7.68 (br. s, 2H), 7.44 (d, $J = 8.1$ Hz, 2H), 7.13 (d, $J = 8.1$ Hz, 2H), 6.83 (d, $J = 6.0$ Hz, 2H), 3.97 (br. s, 4H), 3.15 (br. s, 6H), 2.85-2.75 (m, 2H), 2.52 (br. s, 4H), 1.68 (br. s, 4H) ppm; MS (ES) 526.04 (M+H), 524.13 (M-H);

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5-amino-1-(4-(piperidin-1-yl)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole (compound #401), pale yellow solid; ¹H-NMR (DMSO-*d*₆, 300 MHz) 8.97 (br. s, 1H), 8.22 (d, *J* = 9.0 Hz, 2H), 7.63 (br. s, 2H), 7.44 (d, *J* = 9.0 Hz, 2H), 6.98 (d, *J* = 9.3 Hz, 1H), 6.84 (d, *J* = 8.7 Hz, 2H), 3.99 (t, *J* = 6.0 Hz, 4H), 3.40 (br. s, 4H), 2.77 (t, *J* = 5.7 Hz, 2H), 2.53 (br. s, 4H), 1.68 (br. s, 4H), 1.60 (br. s, 6H) ppm; MS (ES) 476.95 (M+H), 474.62 (M-H);

5-amino-3-[3-chloro-4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1-(3,5-dichlorophenyl)carbonyl-1H-1,2,4-triazole (compound #402); ¹H-NMR (DMSO-*d*₆) δ 8.18 (d, 1H), 7.90 (m, 3H), 7.19 (d, 2H), 4.20 (t, 2H), 2.93 (m, 2H), 2.69 (m, 4H), 1.72 (s, 4H) ppm; MS (ES) 496 (M+H);

5-amino-3-[*N*-(3-(4-(2-chloro-6-fluorophenyl)piperazin-1-yl)prop-1-yl)-*N*-((3-methylphenyl)carbonyl)amino]-1-(3-methylphenyl)carbonyl-1*H*-1,2,4-triazole (compound #403); mp 109-113 °C; ¹H-NMR (300 MHz, DMSO-*d*₆) δ 7.90 (br s, 2H), 7.40-7.08 (m, 10H), 6.92 (d, *J* = 7.8 Hz, 1H), 3.81 (m, 2H), 3.55 (br s, 2H), 2.50-2.20 (m, 14H), 1.74 (m, 2H); IR (ATR) 2813, 1663, 1549, 1440 cm⁻¹; ESI MS *m/z* 605 [C₃₂H₃₅ClFN₇O₂ + H]⁺; HPLC (Method 1) 91.9% (AUC), *t*_R = 11.56 min;

3-amino-5-[3-(4-(2-chloro-6-fluorophenyl)piperazin-1-yl)prop-1-yl]amino-1-(3-methylphenyl)carbonyl-1H-1,2,4-triazole (compound #404); mp 86-92 °C; ¹H NMR (300 MHz, DMSO-*d*₆) δ 8.13 (m, 1H), 7.87-7.82 (m, 2H), 7.40-7.30 (m, 4H), 7.21 (m, 1H), 5.84 (br s, 2H), 3.59 (br s, 2H), 3.39 (m, 2H), 2.37-2.30 (m, 13H), 1.74 (m, 2H); ¹³C NMR (75 MHz, DMSO-*d*₆) δ 164.6, 160.4, 158.2, 156.4, 135.3, 134.0, 133.9, 131.4, 130.9, 128.6, 128.4, 128.3, 126.0, 125.6, 123.8, 122.0, 121.7, 112.8, 122.5, 54.2, 51.1, 50.6, 50.3, 40.3, 23.8, 19.3; IR (ATR) 2814, 1669, 1630, 1650, 1573 cm⁻¹; ESI MS *m/z* 486 [C₂₄H₂₉ClFN₇O + H]⁺; HPLC (Method 1) 96.7% (AUC), *t*_R = 9.55 min;

5-amino-3-[3-(4-(2-chloro-6-fluorophenyl)piperazin-1-yl)prop-1-yl]amino-1-(3-methylphenyl)carbonyl-1H-1,2,4-triazole (compound #405); mp 62-69 °C; ¹H NMR (300 MHz, DMSO-*d*₆) δ 7.90 (m, 2H), 7.63 (br s, 2H), 7.40-7.32 (m, 4H), 7.22 (m, 1H), 6.29 (m, 1H), 3.57 (m, 2H), 3.03 (m, 2H), 2.40-2.20 (m, 8H), 2.36 (s, 3H), 1.63 (m, 2H); ¹³C NMR (75 MHz, DMSO-*d*₆) δ 166.7, 163.5, 162.5, 160.2, 158.4, 137.3, 135.9, 133.7, 133.3, 133.1, 131.1, 130.5, 130.3, 130.1, 128.8, 128.0, 127.9, 126.8, 125.9, 123.9, 123.7, 114.8, 114.5, 55.9, 53.0, 52.8, 52.3, 26.6, 22.0; IR (ATR) 2938, 1672, 1587, 1347 cm⁻¹; ESI MS *m/z* 486 [C₂₄H₂₉ClFN₇O + H]⁺; HPLC (Method 1) 95.8% (AUC), *t*_R = 9.91 min.

All compounds of the invention which exist in free base or acid form can be converted to their pharmaceutically acceptable salts by treatment with the appropriate

Chemiluminescent working solution (Pierce, 37030): SuperSignal ELISA (enzyme linked immunosorbant assay) Pico Chemiluminescent substrate.

Crystal Violet solution: Stock : 2.5% Crystal violet in methanol, filtered and kept at ambient temperature. The working solution: dilute the stock 1:20 with PBS immediately before use.

10% SDS: working solution: 5% SDS (sodium dodecylsulfate), diluted in PBS

Methods:

Day 1:

A 96 well TC (tissue culture treated) plate was coated with 10µg/mL poly-L-Lysine at 37°C for 30 min, washed twice with PBS, and air-dried for 5 minutes before cells were added. Hela cells were seeded at 10,000 cells/well and the cells were starved in 100 µL starvation medium containing Axl/Fc for 24 hrs.

Day 2:

The cells were pre-treated with test compounds by adding 100 µL of 2X test compound to the starvation medium on the cells. The cells were incubated at 37°C for 1 hr before stimulation.

The cells were stimulated by Axl-antibody cross-linking as follows: A 5X 1st/2nd Axl antibody mixture was made (37.5µg/mL 1st/ 100µg/mL 2nd) in starvation medium and nutated at 4°C with thorough mixing for 1-2 hours for clustering. The resulting mix was warmed to 37°C. 50µL of 5X Axl 1st /2nd of antibody cluster was added to the cells and the cells were incubated at 37°C for 5 min.

After 5 minutes stimulation, the plate was flicked to remove medium and the plate was tapped onto paper towels. Formaldehyde (4.0% in PBS, 100 µL) was added to fix the cells and the cells were incubated at ambient temperature for 20 min without shaking.

The cells were washed with a plate washer buffer to remove the formaldehyde solution. The plate was flicked to removed excess wash buffer and tapped onto paper towels. Quenching buffer (100 µL) was added to each well and the cells were incubated at ambient temperature for 20 minutes without shaking.

The cells were washed with a plate washer buffer to remove the quenching buffer. Blocking buffer (100 µL) was added and the cells were incubated at ambient temperature for at least an hour with gentle shaking.

The cells were washed with a plate washer buffer and diluted primary antibody (50 µL) was added to each well (blocking buffer was added to the negative control wells

instead). The plates were incubated overnight at 4° C with gentle shaking.

Day 3:

The wash buffer was removed, diluted secondary antibody (100 µL) was added, and the cells were incubated at ambient temperature for 1 hour with gentle shaking.

- 5 During the incubation, the chemiluminescent reagent was brought to ambient temperature.

- 10 The secondary antibody was removed by washing the cells 1X with wash buffer, 1X with PBS by plate washer. The PBS was removed from the plate and the chemiluminescent reagent (80 µL: 40 µL A and 40 µL B) was added to each well at ambient temperature.

- 15 The resulting chemiluminescence was read with a Luminomitor within 10 minutes to minimize changes in signal intensity. After reading the chemiluminescence, the cells were washed 1X with wash buffer and 1X with PBS by plate washer. The plate was tapped onto paper towels to remove excess liquid from wells and air-dried at ambient temperature for 5 minutes.

- Crystal Violet working solution (60 µL) was added to each well and the cells were incubated at ambient temperature for 30 min. The crystal violet solution was removed, and the wells were rinsed with PBS, then washed 3X with PBS (200 µL) for 5 minutes each.

- 20 5% SDS solution (70 µL) was added to each well and the cells were incubated on a shaker for 30 min at ambient temperature.

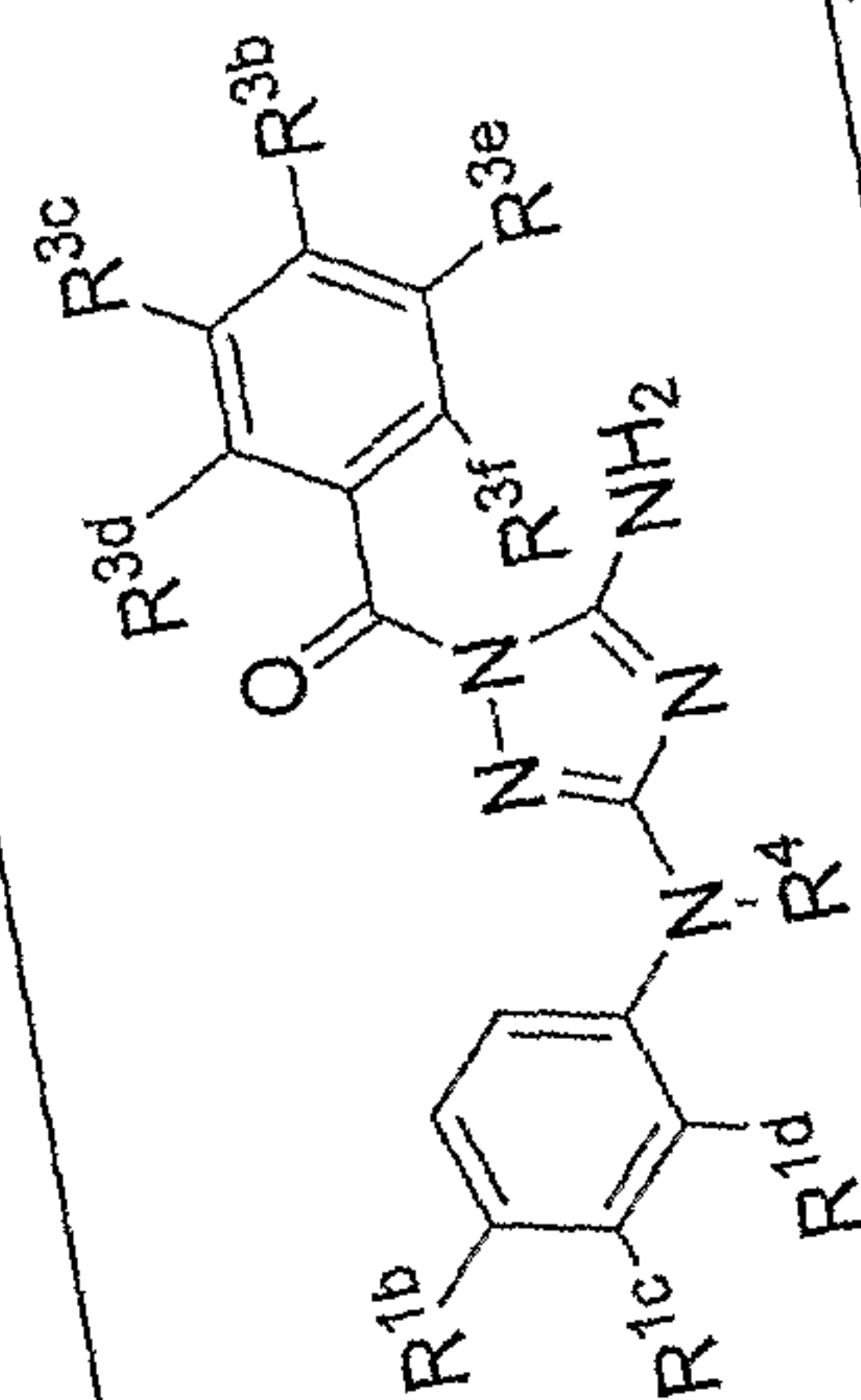
The absorbance was read at 590 nM on a Wallac photospec. The 590nM readings indicated the relative cell number in each well. This relative cell number was then used to normalize each luminescence reading.

- 25 The results of the ability of the compounds of the invention to inhibit Axl activity, when tested in the above assay, are shown in the following Tables 1-10 wherein the level of activity (*i.e.*, the IC₅₀) for each compound is indicated in each Table. The compound numbers in the Tables referred to the compounds disclosed herein as being prepared by the methods disclosed herein:

30

Table 1

IC₅₀ activity: A = < 1 μM
 B = 1 to 10 μM
 C = >10 to 20 μM
 D = > 20 μM



Compound Name

Cpd #

5-amino-1-(3-(iso-propoxy)phenyl)carbonyl-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole

168

5-amino-1-(3-(iso-propoxy)phenyl)carbonyl-3-[4-[2-(morpholin-4-yl)ethoxy]phenylamino]-1H-1,2,4-triazole

169

5-amino-1-(3-(iso-propoxy)phenyl)carbonyl-3-[3-(1,3,4-oxazol-5-yl)phenylamino]-1H-1,2,4-triazole

170

5-amino-1-(2-(chloro)phenyl)carbonyl-3-(1,4-benzodioxan-6-yl)amino-1H-1,2,4-triazole

94

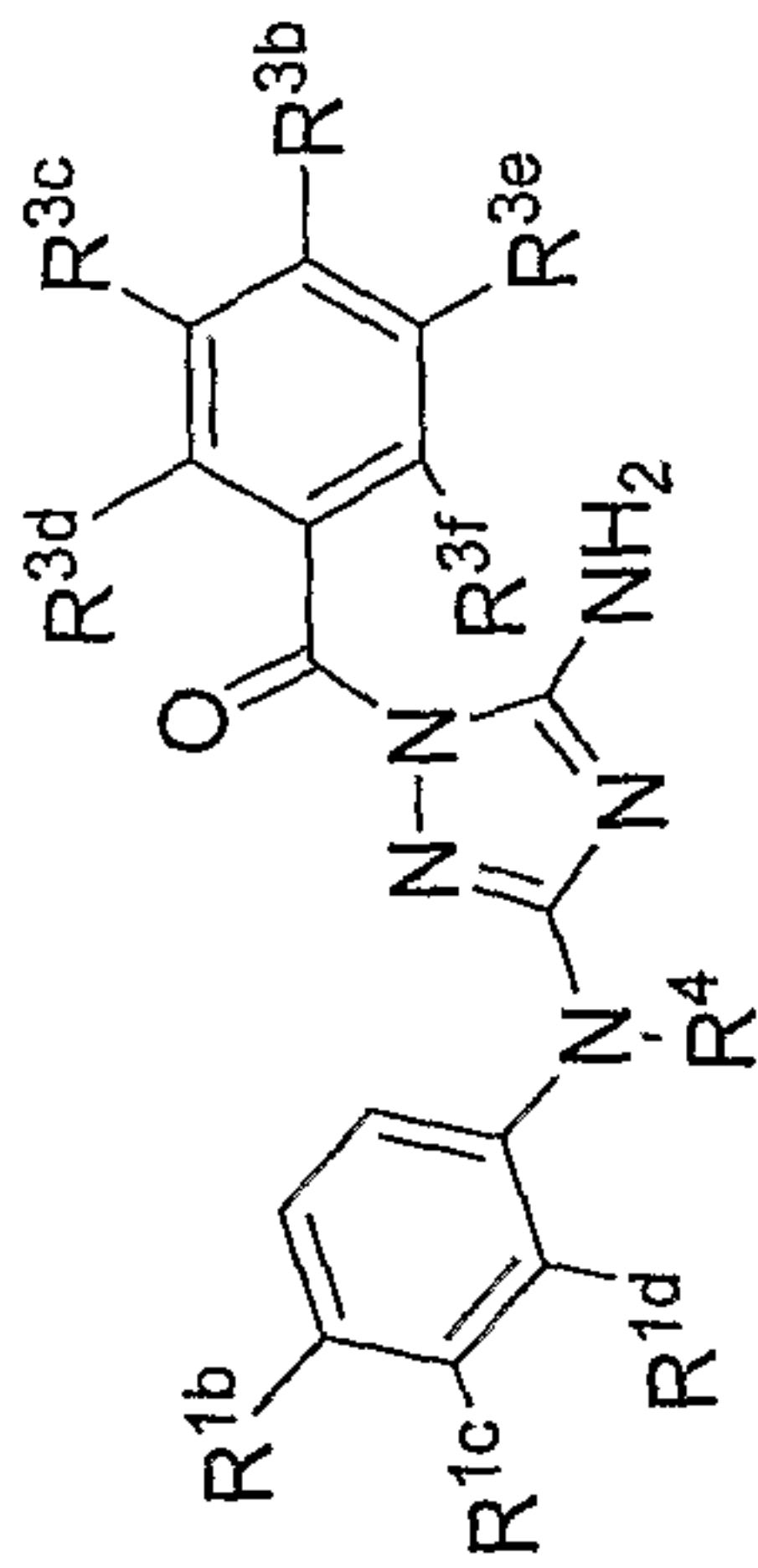
5-amino-1-(4-(chloro)phenyl)carbonyl-3-(1,4-benzodioxan-6-yl)amino-1H-1,2,4-triazole

95

Cpd #	Compound Name	R ^{1b}	R ^{1c}	R ^{1d}	R ⁴	R ^{3b}	R ^{3c}	R ^{3d}	R ^{3e}	R ^{3f}	IC ₅₀
168	5-amino-1-(3-(iso-propoxy)phenyl)carbonyl-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole		-H	-H	-H	-H		-H	-H	-H	A
169	5-amino-1-(3-(iso-propoxy)phenyl)carbonyl-3-[4-[2-(morpholin-4-yl)ethoxy]phenylamino]-1H-1,2,4-triazole		-H	-H	-H	-H		-H	-H	-H	A
170	5-amino-1-(3-(iso-propoxy)phenyl)carbonyl-3-[3-(1,3,4-oxazol-5-yl)phenylamino]-1H-1,2,4-triazole		-H	-H	-H	-H		-H	-H	-H	B
94	5-amino-1-(2-(chloro)phenyl)carbonyl-3-(1,4-benzodioxan-6-yl)amino-1H-1,2,4-triazole		-H	-H	-H	-H	-Cl	-H	-H	-H	D
95	5-amino-1-(4-(chloro)phenyl)carbonyl-3-(1,4-benzodioxan-6-yl)amino-1H-1,2,4-triazole		-H	-H	-H	-H	-Cl	-H	-H	-H	B

Table 1

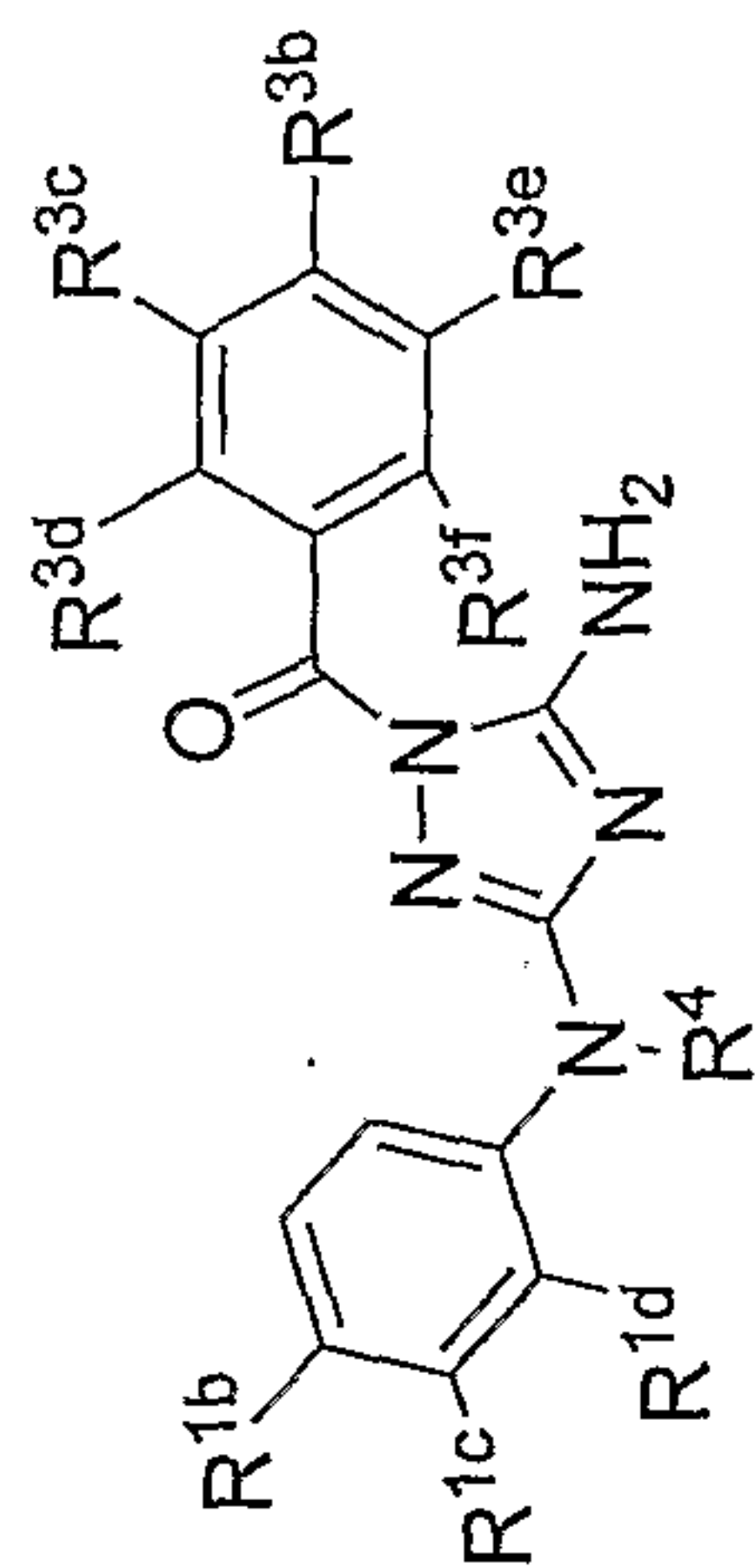
IC₅₀ activity: A = < 1 μM
 B = 1 to 10 μM
 C = >10 to 20 μM
 D = > 20 μM



Cpd #	Compound Name	R ^{1b}	R ^{1c}	R ^{1d}	R ⁴	R ^{3b}	R ^{3c}	R ^{3d}	R ^{3e}	R ^{3f}	IC ₅₀
96	5-amino-3-(1,4-benzodioxan-6-yl)amino-1-(3-(methyl)phenyl)carbonyl-1H-1,2,4-triazole			-H	-H	-H	-CH ₃	-H	-H	-H	B
97	5-amino-3-(1,4-benzodioxan-6-yl)amino-1-(2-(methyl)phenyl)carbonyl-1H-1,2,4-triazole			-H	-H	-H	-H	-CH ₃	-H	-H	C
98	5-amino-3-(1,4-benzodioxan-6-yl)amino-1-(3-(methoxy)phenyl)carbonyl-1H-1,2,4-triazole			-H	-H	-H	-OCH ₃	-H	-H	-H	B
99	5-amino-3-(1,4-benzodioxan-6-yl)amino-1-(2-(fluoro)phenyl)carbonyl-1H-1,2,4-triazole			-H	-H	-H	-H	-F	-H	-H	C
100	5-amino-3-(1,4-benzodioxan-6-yl)amino-1-(4-(fluoro)phenyl)carbonyl-1H-1,2,4-triazole			-H	-H	-F	-H	-H	-H	-H	D
101	5-amino-1-(3-(chloro)phenyl)carbonyl-3-(1,4-benzodioxan-6-yl)amino-1H-1,2,4-triazole			-H	-H	-H	-Cl	-H	-H	-H	B

Table 1

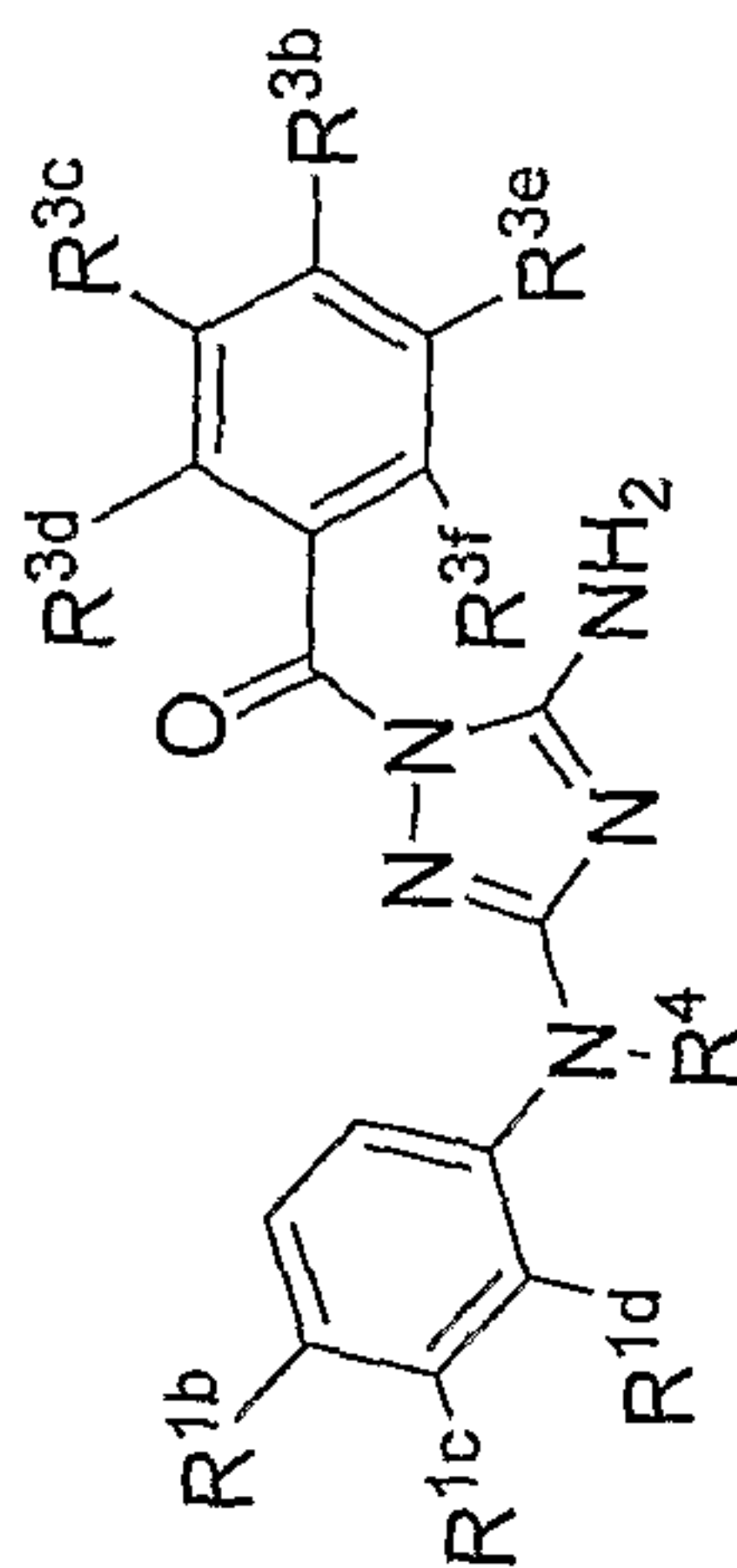
IC₅₀ activity: A = < 1 μM
 B = 1 to 10 μM
 C = >10 to 20 μM
 D = > 20 μM



Cpd #	Compound Name	R ^{1b}	R ^{1c}	R ^{1d}	R ⁴	R ^{3b}	R ^{3c}	R ^{3d}	R ^{3e}	R ^{3f}	IC ₅₀
102	5-amino-3-(1,4-benzodioxan-6-yl)amino-1-(4-(methyloxy)phenyl)carbonyl-1H-1,2,4-triazole			-H	-H	-OCH ₃	-H	-H	-H	-H	B
(1a-15)	5-amino-3-[3-(hydroxy)phenylamino]-1-(4-(methyl)phenyl)carbonyl-1H-1,2,4-triazole	-H	-OH	-H	-H	-CH ₃	-H	-H	-H	-H	C
(1a-4)	5-amino-3-[4-(hydroxy)phenylamino]-1-(4-(methyl)phenyl)carbonyl-1H-1,2,4-triazole	-OH	-H	-H	-H	-CH ₃	-H	-H	-H	-H	D
104	5-amino-3-(1,4-benzodioxan-6-yl)amino-1-(4-(methyloxy)phenyl)carbonyl-1H-1,2,4-triazole			-H	-H	-CH ₃	-H	-H	-H	-H	B
105	5-amino-3-(1,4-benzodioxan-6-yl)amino-1-(3-(fluoro)phenyl)carbonyl-1H-1,2,4-triazole			-H	-H	-H	-F	-H	-H	-H	D
106	5-amino-3-(1,4-benzodioxan-6-yl)amino-1-(2-(methyloxy)phenyl)carbonyl-1H-1,2,4-triazole			-H	-H	-H	-H	-OCH ₃	-H	-H	D

Table 1

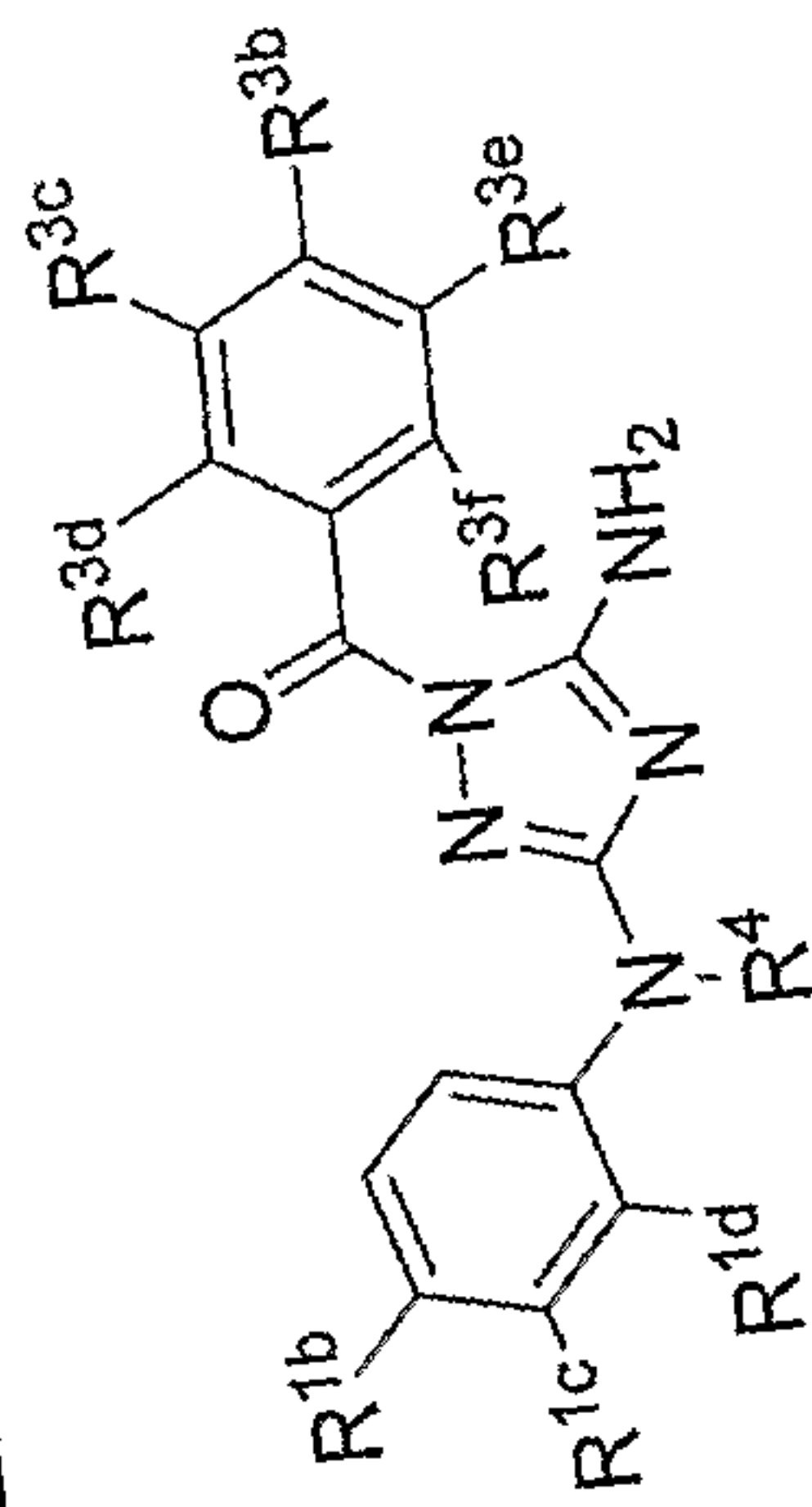
IC₅₀ activity: A = < 1 μM
 B = 1 to 10 μM
 C = > 10 to 20 μM
 D = > 20 μM



Cpd #	Compound Name	R ^{1b}	R ^{1c}	R ^{1d}	R ⁴	R ^{3b}	R ^{3c}	R ^{3d}	R ^{3e}	R ^{3f}	IC ₅₀
(1a-6)	5-amino-3-[3-(hydroxy)phenylamino]-1-(2-(methyl)phenyl)carbonyl-1H-1,2,4-triazole	-H	-OH	-H	-H	-H	-H	-CH ₃	-H	-H	D
(1a-7)	5-amino-3-[3-(hydroxy)phenylamino]-1-(3-(methyl)phenyl)carbonyl-1H-1,2,4-triazole	-H	-OH	-H	-H	-H	-CH ₃	-H	-H	-H	B
(1a-5)	5-amino-3-[3-(cyanomethoxy)phenylamino]-1-(4-(methyl)phenyl)carbonyl-1H-1,2,4-triazole	-H	-OCH ₂ CN	-H	-H	-CH ₃	-H	-H	-H	-H	D
(1a-10)	5-amino-3-[4-(benzyloxy)phenylamino]-1-(4-(isopropoxy)phenyl)carbonyl-1H-1,2,4-triazole	-OCH ₂ -Ph	-H	-H	-H		-H	-H	-H	-H	D
109	1-(4-(acetoxy)phenyl)carbonyl-5-amino-3-(1,4-benzodioxan-6-yl)amino-1H-1,2,4-triazole			-H	-H	-OC(O)CH ₃	-H	-H	-H	-H	B
110	1-(3-(acetoxy)phenyl)carbonyl-5-amino-3-(1,4-benzodioxan-6-yl)amino-1H-1,2,4-triazole			-H	-H	-H	-OC(O)CH ₃	-H	-H	-H	B

Table 1

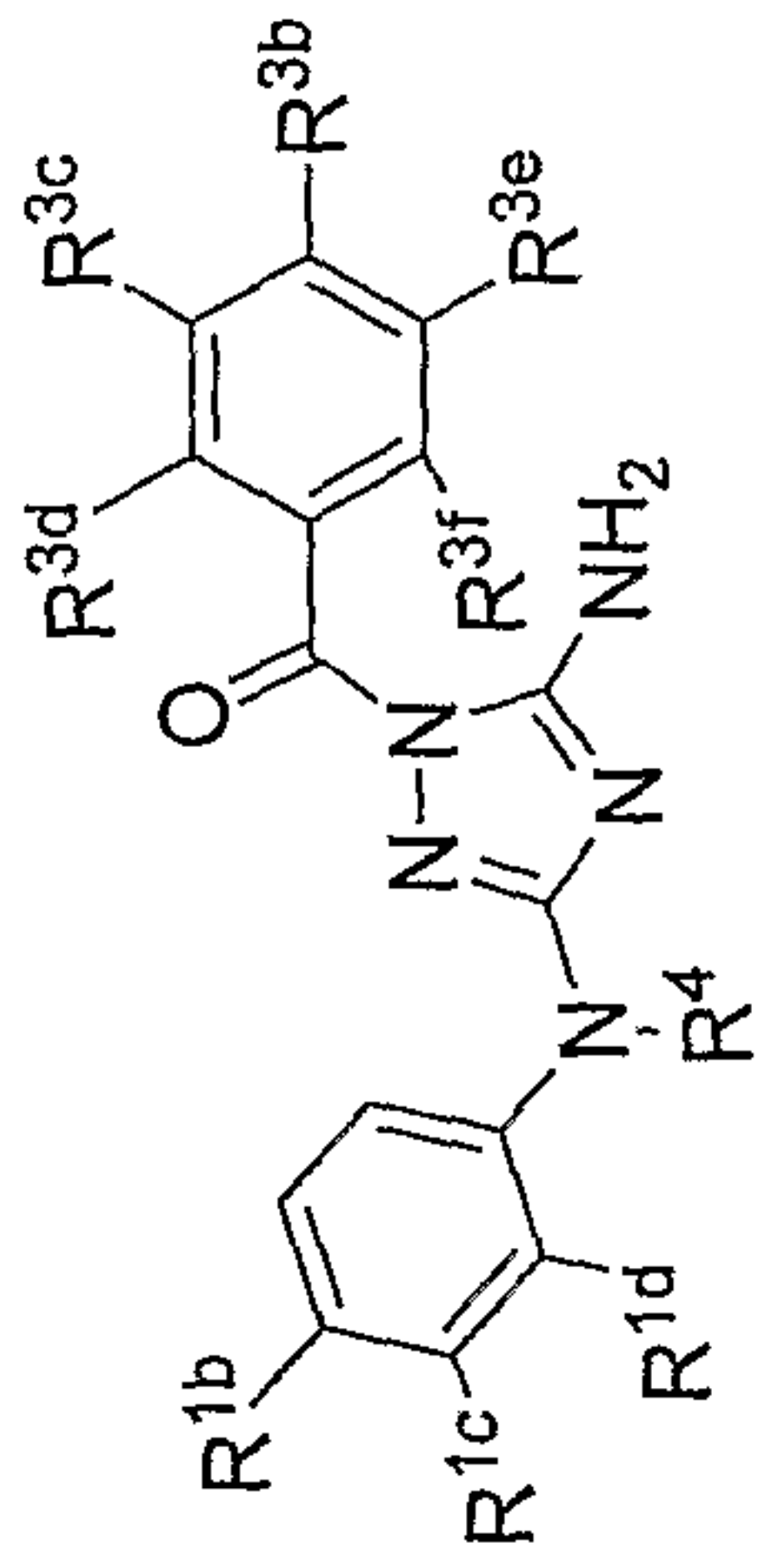
IC₅₀ activity: A = < 1 μM
 B = 1 to 10 μM
 C = >10 to 20 μM
 D = > 20 μM



Cpd #	Compound Name	R ^{1b}	R ^{1c}	R ^{1d}	R ⁴	R ^{3b}	R ^{3c}	R ^{3d}	R ^{3e}	R ^{3f}	IC ₅₀
(la-8)	5-amino-3-[3-(cyanomethoxy)phenylamino]-1-(2-(methyl)phenyl)carbonyl-1H-1,2,4-triazole	-H	-OCH ₂ CN	-H	-H	-H	-H	-CH ₃	-H	-H	D
(la-9)	5-amino-3-[3-(cyanomethoxy)phenylamino]-1-(3-(methyl)phenyl)carbonyl-1H-1,2,4-triazole	-H	-OCH ₂ CN	-H	-H	-H	-CH ₃	-H	-H	-H	D
(la-17)	5-amino-3-[3-(benzyloxy)phenylamino]-1-(3-(isopropoxy)phenyl)carbonyl-1H-1,2,4-triazole	-H	-OCH ₂ -Ph	-H	-H	-H	-H	-H	-H	-H	B
111	5-amino-3-[4-(isopropoxy)phenylamino]-1-(4-(isopropoxy)phenyl)carbonyl-1H-1,2,4-triazole	-H	-H	-H	-H	-H	-H	-H	-H	-H	B
112	5-amino-3-(1,4-benzodioxan-6-yl)amino-1-(3-(isopropoxy)phenyl)carbonyl-1H-1,2,4-triazole	-H	-H	-H	-H	-H	-H	-H	-H	-H	B
113	5-amino-3-(1,4-benzodioxan-6-yl)amino-1-(4-(isopropoxy)phenyl)carbonyl-1H-1,2,4-triazole	-H	-H	-H	-H	-H	-H	-H	-H	-H	B

Table 1

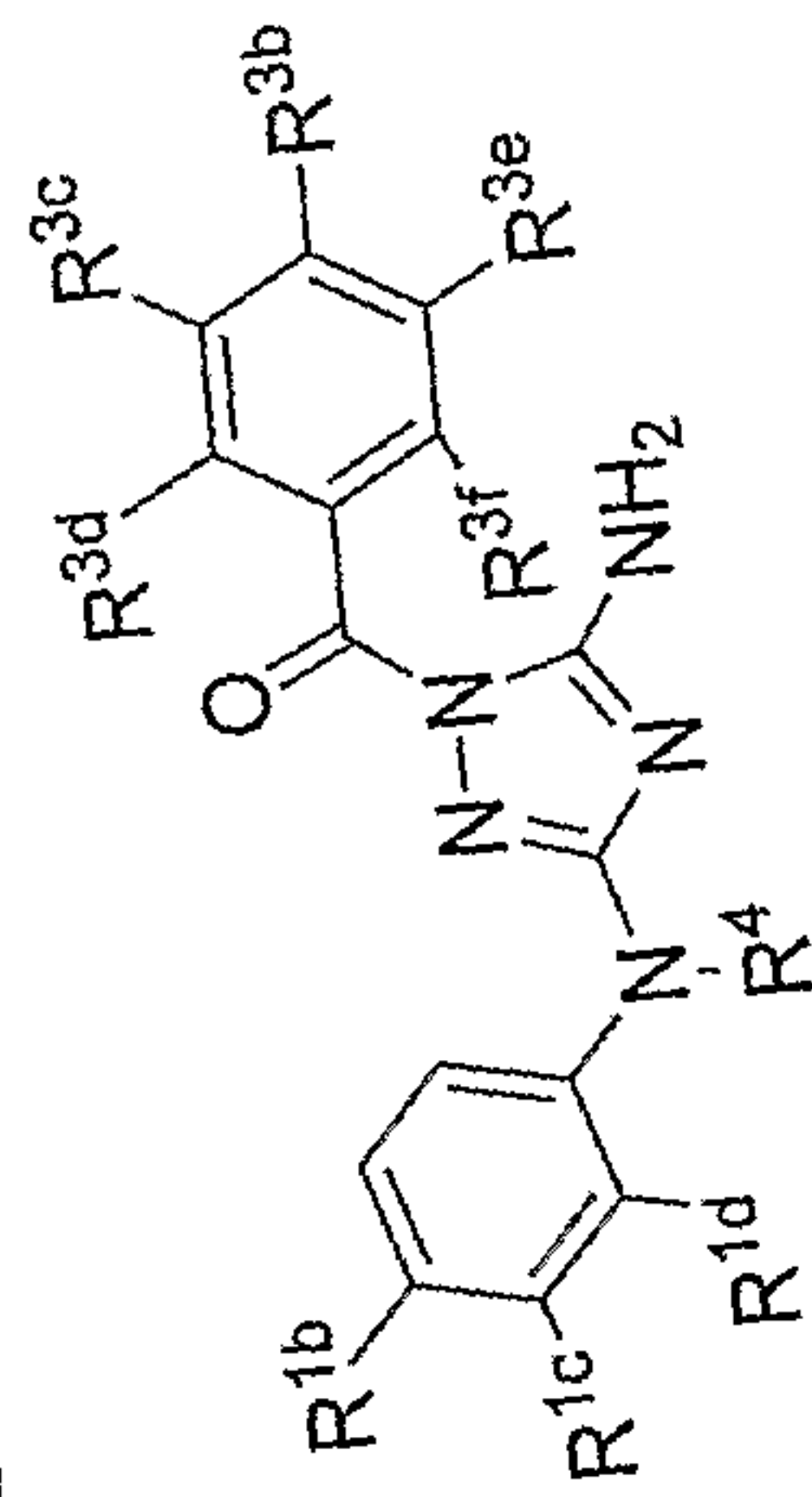
IC₅₀ activity: A = < 1 μM
B = 1 to 10 μM
C = >10 to 20 μM
D = > 20 μM



Cpd #	Compound Name	R ^{1b}	R ^{1c}	R ^{1d}	R ⁴	R ^{3b}	R ^{3c}	R ^{3d}	R ^{3e}	R ^{3f}	IC ₅₀
114	5-amino-1-(4-ethoxyphenyl)carbonyl-3-(1,4-benzodioxan-6-yl)amino-1H-1,2,4-triazole			-H	-H	-OCH ₂ CH ₃	-H	-H	-H	-H	B
(1a-16)	5-amino-3-[3-(hydroxy)phenylamino]-1-(3-(isopropoxy)phenyl)carbonyl-1H-1,2,4-triazole	-H	-OH	-H	-H	-H		-H	-H	-H	B
(1a-13)	5-amino-3-[3-(hydroxy)phenylamino]-1-(4-(isopropoxy)phenyl)carbonyl-1H-1,2,4-triazole	-H	-OH	-H	-H		-H	-H	-H	-H	B
(1a-25)	5-amino-3-[3-(benzyloxy)phenylamino]-1-(4-(isopropoxy)phenyl)carbonyl-1H-1,2,4-triazole	-H	-OCH ₂ -Ph	-H	-H		-H	-H	-H	-H	D
116	5-amino-3-[3-(cyclopentoxymethyl)phenylamino]-1-(4-(isopropoxy)phenyl)carbonyl-1H-1,2,4-triazole	-H		-H	-H		-H	-H	-H	-H	D
(1a-11)	5-amino-3-[4-(hydroxy)phenylamino]-1-(4-(isopropoxy)phenyl)carbonyl-1H-1,2,4-triazole	-OH	-H	-H	-H		-H	-H	-H	-H	B

Table 1

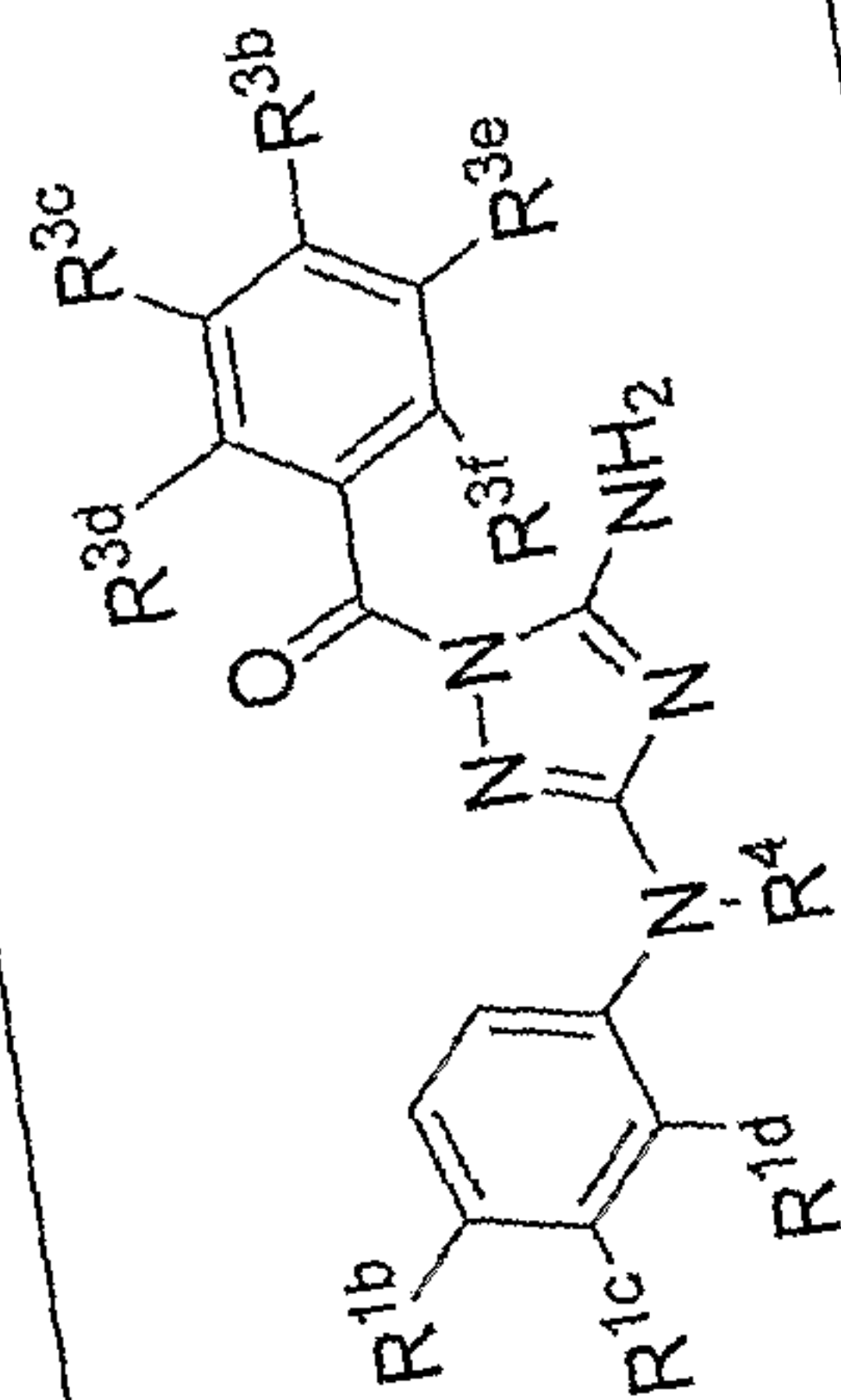
IC₅₀ activity: A = < 1 μM
 B = 1 to 10 μM
 C = >10 to 20 μM
 D = > 20 μM



Cpd #	Compound Name	R ^{1b}	R ^{1c}	R ^{1d}	R ⁴	R ^{3b}	R ^{3c}	R ^{3d}	R ^{3e}	R ^{3f}	IC ₅₀
117	5-amino-1-(4-(iso-propoxy)phenyl)carbonyl-3-[4-(methoxy)phenylamino]-1H-1,2,4-triazole	-OCH ₃	-H	-H	-H		-H	-H	-H	-H	B
118	5-amino-3-[4-(ethoxy)phenylamino]-1-(4-(iso-propoxy)phenyl)carbonyl-1H-1,2,4-triazole	-OCH ₂ CH ₃	-H	-H	-H		-H	-H	-H	-H	B
119	1-(2-(acetoxymethyl)phenyl)carbonyl-5-amino-3-(1,4-benzodioxan-6-yl)amino-1H-1,2,4-triazole			-H	-H	-H	-H		-H	-H	B
120	5-amino-1-(4-(cyclopentoxymethyl)phenyl)carbonyl-3-(1,4-benzodioxan-6-yl)amino-1H-1,2,4-triazole			-H	-H		-H	-H	-H	-H	D
121	5-amino-1-(4-(isopropoxy)phenyl)carbonyl-3-(3-(methoxy)phenylamino)-1H-1,2,4-triazole	-H	-OCH ₃	-H	-H		-H	-H	-H	-H	B
122	5-amino-3-[3-(isopropoxy)phenylamino]-1-(4-(iso-propoxy)phenyl)carbonyl-1H-1,2,4-triazole	-H	-H	-H	-H		-H	-H	-H	-H	B

Table 1

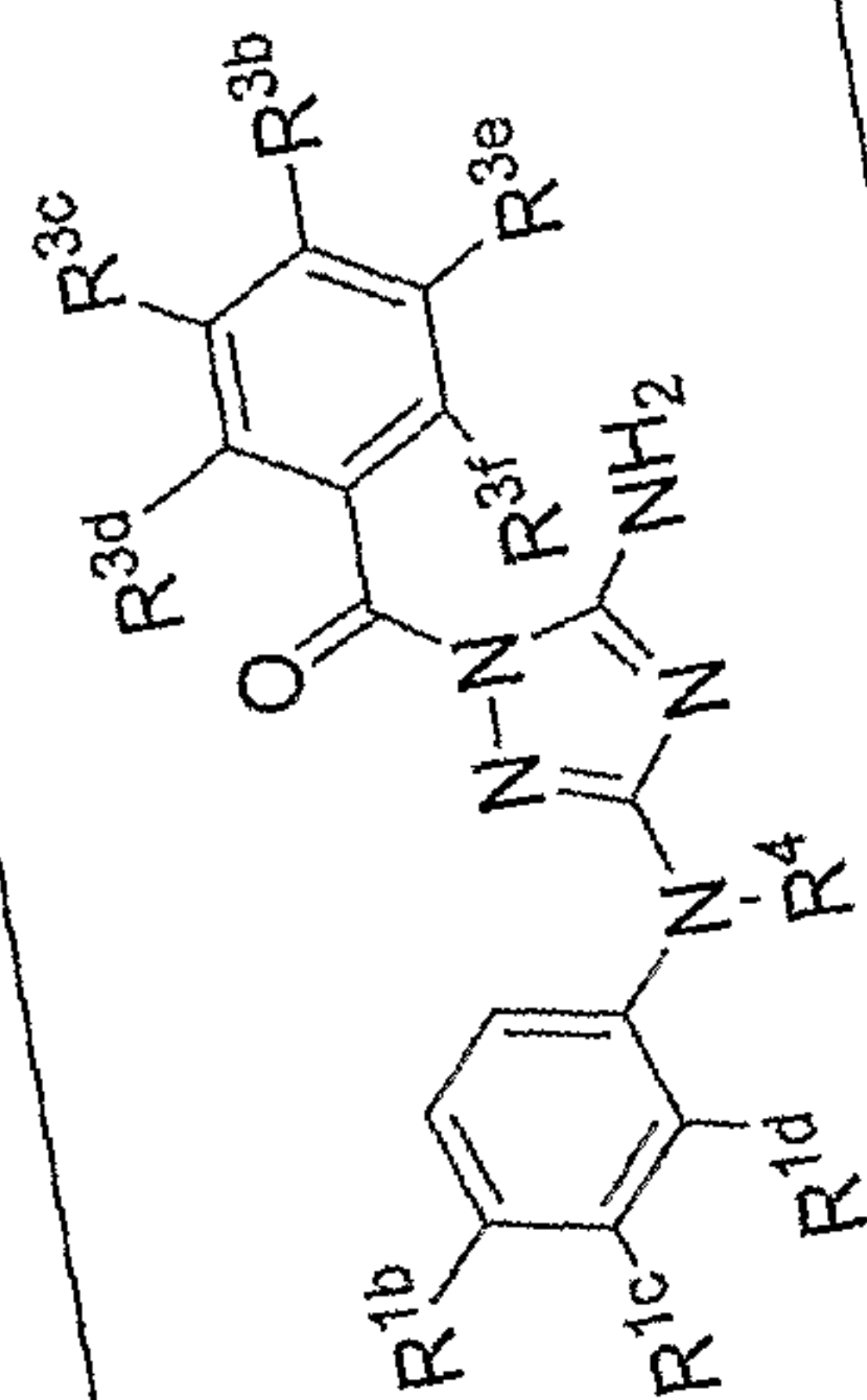
IC₅₀ activity:
 A = < 1 μM
 B = 1 to 10 μM
 C = > 10 to 20 μM
 D = > 20 μM



Cpd #	Compound Name	R ^{1b}	R ^{1c}	R ^{1d}	R ⁴	R ^{3b}	R ^{3c}	R ^{3d}	R ^{3e}	R ^{3f}	IC ₅₀
123	5-amino-3-[4-(fluoro)phenylamino]-1-(4-(methyl)phenyl)carbonyl-1H-1,2,4-triazole	-F	-H	-H	-H	-CH ₃	-H	-H	-H	-H	C
124	5-amino-3-[3-(fluoro)phenylamino]-1-(4-(methyl)phenyl)carbonyl-1H-1,2,4-triazole	-H	-F	-H	-H	-CH ₃	-H	-H	-H	-H	C
(1a-26)	5-amino-3-[3-[2-(morpholin-4-yl)ethoxy]phenylamino]-1-phenylcarbonyl-1H-1,2,4-triazole	-H	-H	-H	-H	-H	-H	-H	-H	-H	B
(1a-27)	5-amino-1-(3-(methyl)phenyl)carbonyl-3-[3-[2-(morpholin-4-yl)ethoxy]phenylamino]-1H-1,2,4-triazole	-H	-H	-H	-H	-H	-CH ₃	-H	-H	-H	B
(1a-22)	5-amino-1-(4-(isopropoxy)phenyl)carbonyl-3-[3-[2-(morpholin-4-yl)ethoxy]phenylamino]-1H-1,2,4-triazole	-H	-H	-H	-H	-H	-H	-H	-H	-H	B

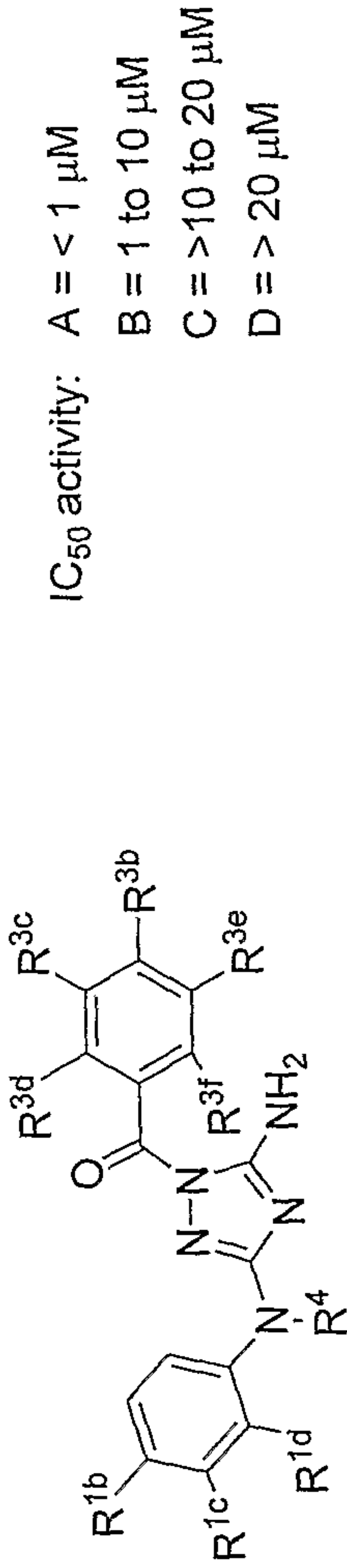
Table 1

IC₅₀ activity:
 A = < 1 μM
 B = 1 to 10 μM
 C = > 10 to 20 μM
 D = > 20 μM



Cpd #	Compound Name	R ^{1b}	R ^{1c}	R ^{1d}	R ⁴	R ^{3b}	R ^{3c}	R ^{3d}	R ^{3e}	R ^{3f}	IC ₅₀
125	5-amino-3-[3-(ethoxy)phenylamino]-1-(4-(iso-propoxy)phenyl)carbonyl-1H-1,2,4-triazole	-H	-OCH ₂ CH ₃	-H	-H		-H	-H	-H	-H	B
126	5-amino-3-(1,4-benzodioxan-6-yl)amino-1-[4-(methoxycarbonylmethoxy)phenyl]-(methoxycarbonyl-1H-1,2,4-triazole		-OCH ₂ CH ₃	-H	-H		-H	-H	-H	-H	B
127	5-amino-1-(3-(cyclopentoxymethoxy)phenyl)carbonyl-3-(1,4-benzodioxan-6-yl)amino-1H-1,2,4-triazole			-H	-H	-H	-OCH ₂ CH ₃	-H	-H	-H	D
128	5-amino-1-(3-(ethoxy)phenyl)carbonyl-3-(1,4-benzodioxan-6-yl)amino-1H-1,2,4-triazole		-H	-H	-F	-H	-CH ₃	-H	-H	-H	D
129	5-amino-3-[2-(fluoro)phenylamino]-1-(4-(methoxy)phenyl)carbonyl-1H-1,2,4-triazole	-H	-CH ₃	-H	-H	-H	-CH ₃	-H	-H	-H	D
131	5-amino-3-[4-(methyl)phenylamino]-1-(4-(methyl)phenyl)carbonyl-1H-1,2,4-triazole	-H	-CH ₃	-H	-H	-H	-CH ₃	-H	-H	-H	D

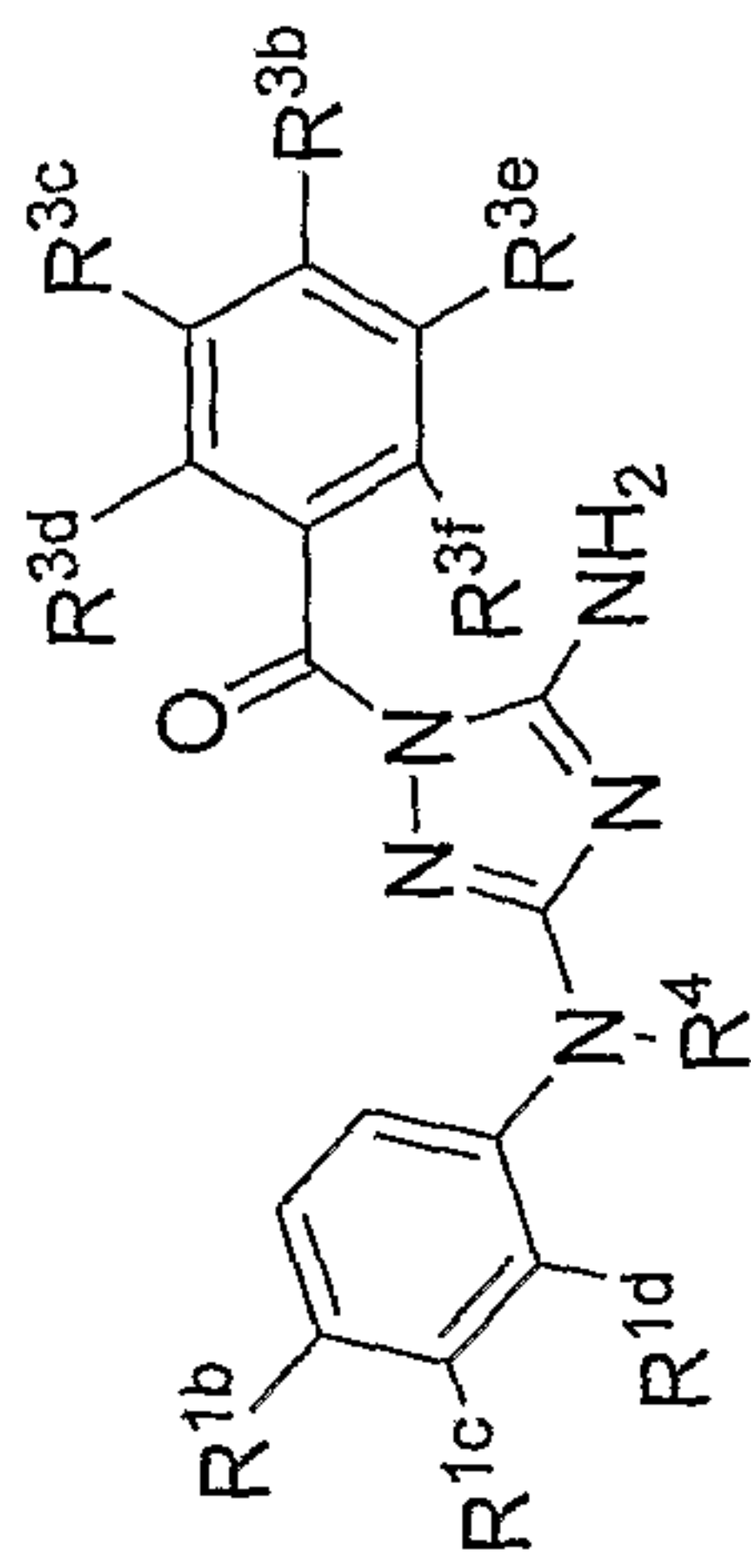
Table 1



Cpd #	Compound Name	R ^{1b}	R ^{1c}	R ^{1d}	R ⁴	R ^{3b}	R ^{3c}	R ^{3d}	R ^{3e}	R ^{3f}	IC ₅₀
132	5-amino-3-[4-(methoxy)phenylamino]-1-(4-(methyl)phenyl)carbonyl-1H-1,2,4-triazole	-OCH ₃	-H	-H	-H	-CH ₃	-H	-H	-H	-H	B
133	5-amino-3-[3-(methyl)phenylamino]-1-(4-(methyl)phenyl)carbonyl-1H-1,2,4-triazole	-H	-CH ₃	-H	-H	-CH ₃	-H	-H	-H	-H	B
134	5-amino-3-[3-(methoxy)phenylamino]-1-(4-(methyl)phenyl)carbonyl-1H-1,2,4-triazole	-H	-OCH ₃	-H	-H	-CH ₃	-H	-H	-H	-H	B
135	5-amino-1-(4-(iso-propoxy)phenyl)carbonyl-3-[3-(methoxycarbonylmethoxy)phenylamino]-1H-1,2,4-triazole	-H		-H	-H		-H	-H	-H	-H	B
(1a-23)	5-amino-1-(4-(iso-propoxy)phenyl)carbonyl-3-[3-(piperidin-1-yl)phenylamino]-1H-1,2,4-triazole	-H		-H	-H		-H	-H	-H	-H	B

Table 1

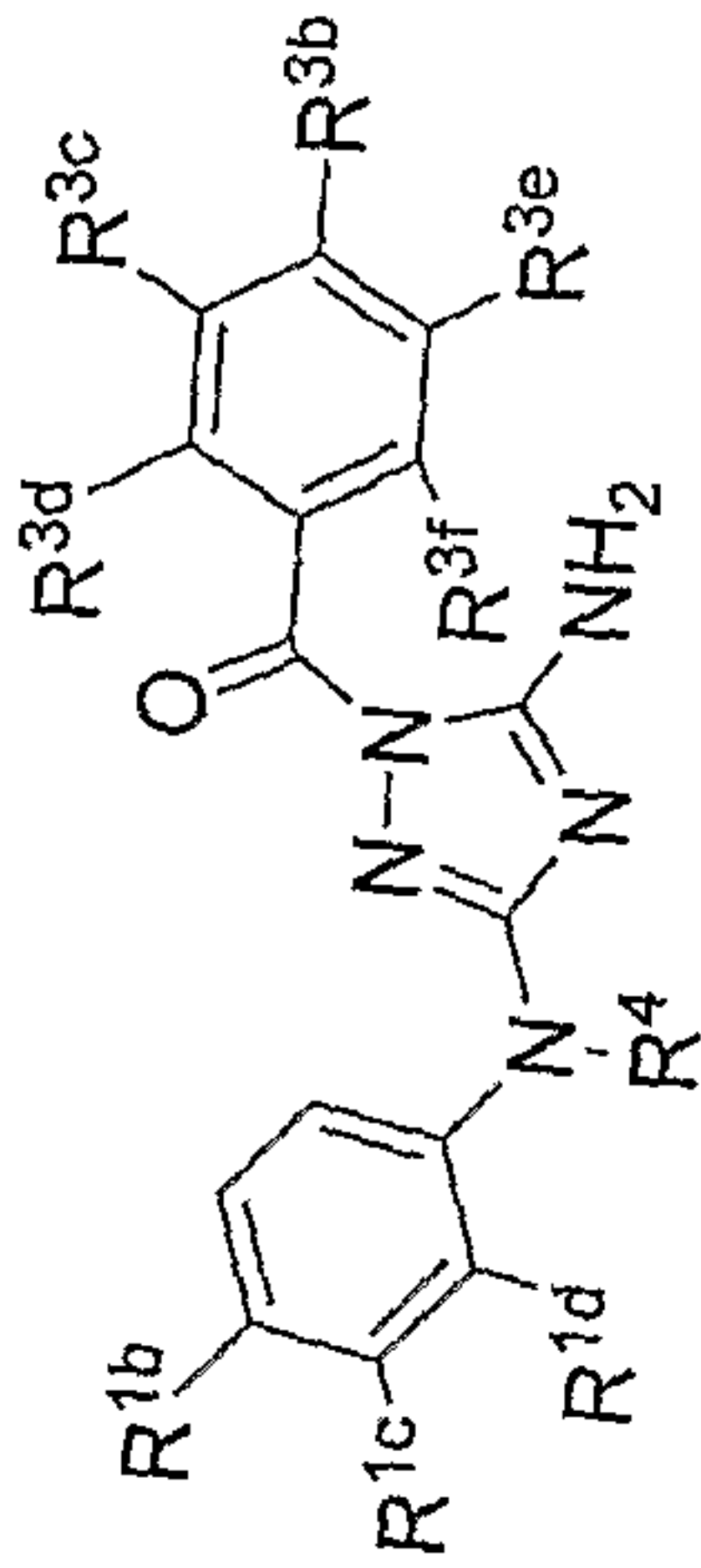
IC₅₀ activity: A = < 1 μM
 B = 1 to 10 μM
 C = >10 to 20 μM
 D = > 20 μM



Cpd #	Compound Name	R ^{1b}	R ^{1c}	R ^{1d}	R ⁴	R ^{3b}	R ^{3c}	R ^{3d}	R ^{3e}	R ^{3f}	IC ₅₀
(1a-24)	5-amino-3-[3-[2-(1,3-dioxolan-2-yl)ethoxy]phenylamino]-1-(4-(isopropoxy)phenyl)carbonyl-1H-1,2,4-triazole	-H		-H	-H		-H	-H	-H	-H	B
137	5-amino-1-(4-(methyl)phenyl)carbonyl-3-phenylamino-1H-1,2,4-triazole	-H	-H	-H	-H	-CH ₃	-H	-H	-H	-H	D
138	5-amino-3-(1,4-benzodioxan-6-yl)amino-1-[3-(methoxycarbonylmethoxy)phenyl]carbonyl-1H-1,2,4-triazole			-H	-H	-H		-H	-H	-H	B
139	5-amino-1-(4-(isopropoxy)phenyl)carbonyl-3-[3-(2,2,2-trifluoroethoxy)phenylamino]-1H-1,2,4-triazole	-H	-OCH ₂ CF ₃	-H	-H		-H	-H	-H	-H	D
(1a-12)	5-amino-3-[4-(cyanomethoxy)phenylamino]-1-(4-(isopropoxy)phenyl)carbonyl-1H-1,2,4-triazole	-OCH ₂ CN	-H	-H	-H		-H	-H	-H	-H	B
(1a-21)	5-amino-3-[3-(cyanomethoxy)phenylamino]-1-(4-(isopropoxy)phenyl)carbonyl-1H-1,2,4-triazole	-H	-OCH ₂ CN	-H	-H		-H	-H	-H	-H	B

Table 1

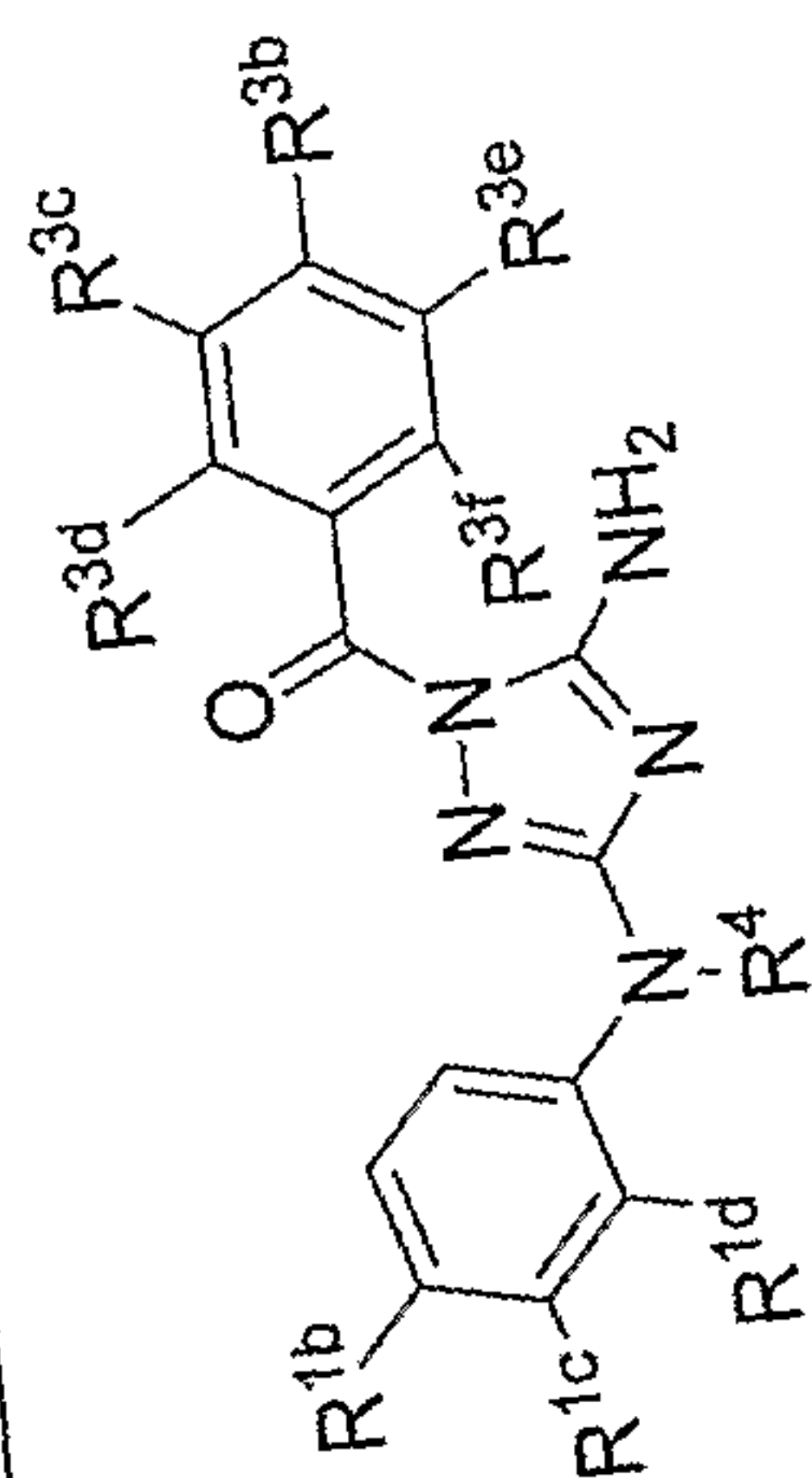
IC₅₀ activity: A = < 1 μM
 B = 1 to 10 μM
 C = >10 to 20 μM
 D = > 20 μM



Cpd #	Compound Name	R ^{1b}	R ^{1c}	R ^{1d}	R ⁴	R ^{3b}	R ^{3c}	R ^{3d}	R ^{3e}	R ^{3f}	IC ₅₀
142	5-amino-1-(4-(benzyloxy)phenyl)carbonyl-3-(1,4-benzodioxan-6-yl)amino-1H-1,2,4-triazole			-H	-H	-OCH ₂ Ph	-H	-H	-H	-H	B
143	5-amino-3-[2-(methoxy)phenylamino]-1-(4-(methyl)phenyl)carbonyl-1H-1,2,4-triazole	-H	-H	-OCH ₃	-H	-CH ₃	-H	-H	-H	-H	D
144	5-amino-3-[2-(methyl)phenylamino]-1-(4-(methyl)phenyl)carbonyl-1H-1,2,4-triazole	-H	-H	-CH ₃	-H	-CH ₃	-H	-H	-H	-H	D
145	5-amino-3-[2-(hydroxy)ethoxy]phenylamino]-1-(3-(methyl)phenyl)carbonyl-1H-1,2,4-triazole	-H		-H	-H	-CH ₃	-H	-H	-H	-H	B
146	5-amino-3-[3-(methylaminocarbonylmethoxy)phenylamino]-1-(3-(methyl)phenyl)carbonyl-1H-1,2,4-triazole	-H		-H	-H	-H	-CH ₃	-H	-H	-H	B

Table 1

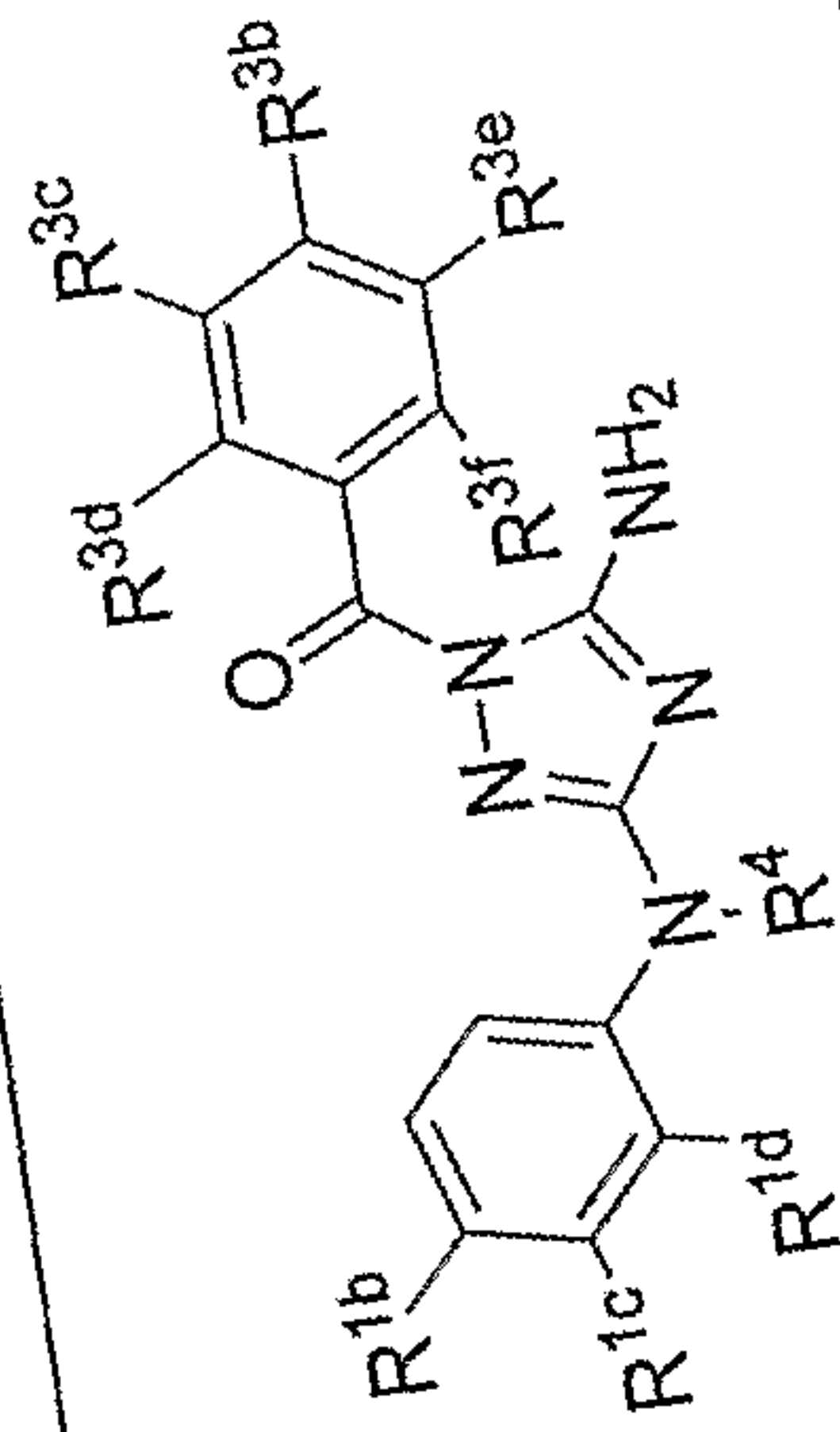
IC₅₀ activity: A = < 1 μM
B = 1 to 10 μM
C = >10 to 20 μM
D = > 20 μM



Cpd #	Compound Name	R ^{1b}	R ^{1c}	R ^{1d}	R ⁴	R ^{3b}	R ^{3c}	R ^{3d}	R ^{3e}	R ^{3f}	IC ₅₀
147	5-amino-3-[3-(methoxycarbonylmethoxy)phenylamino]-1-(3-(methyl)phenyl)carbonyl-1H-1,2,4-triazole	-H		-H	-H	-H	-CH ₃	-H	-H	-H	B
148	5-amino-3-[3-(N-(2,2-dimethyl-1,3-dioxolan-4-yl)methyl)aminocarbonylmethoxy)-(methyl)phenyl]carbonyl-1H-1,2,4-triazole	-H		-H	-H	-H	-CH ₃	-H	-H	-H	B
149	5-amino-3-(1,4-benzodioxan-6-yl)amino-1-[4-[2-(morpholin-4-yl)ethoxy]phenyl]carbonyl-1H-1,2,4-triazole			-H	-H	-H	-H	-H	-H	-H	B
150	5-amino-3-(1,4-benzodioxan-6-yl)amino-1-[3-[2-(morpholin-4-yl)ethoxy]phenyl]carbonyl-1H-1,2,4-triazole			-H	-H	-H	-H	-H	-H	-H	D

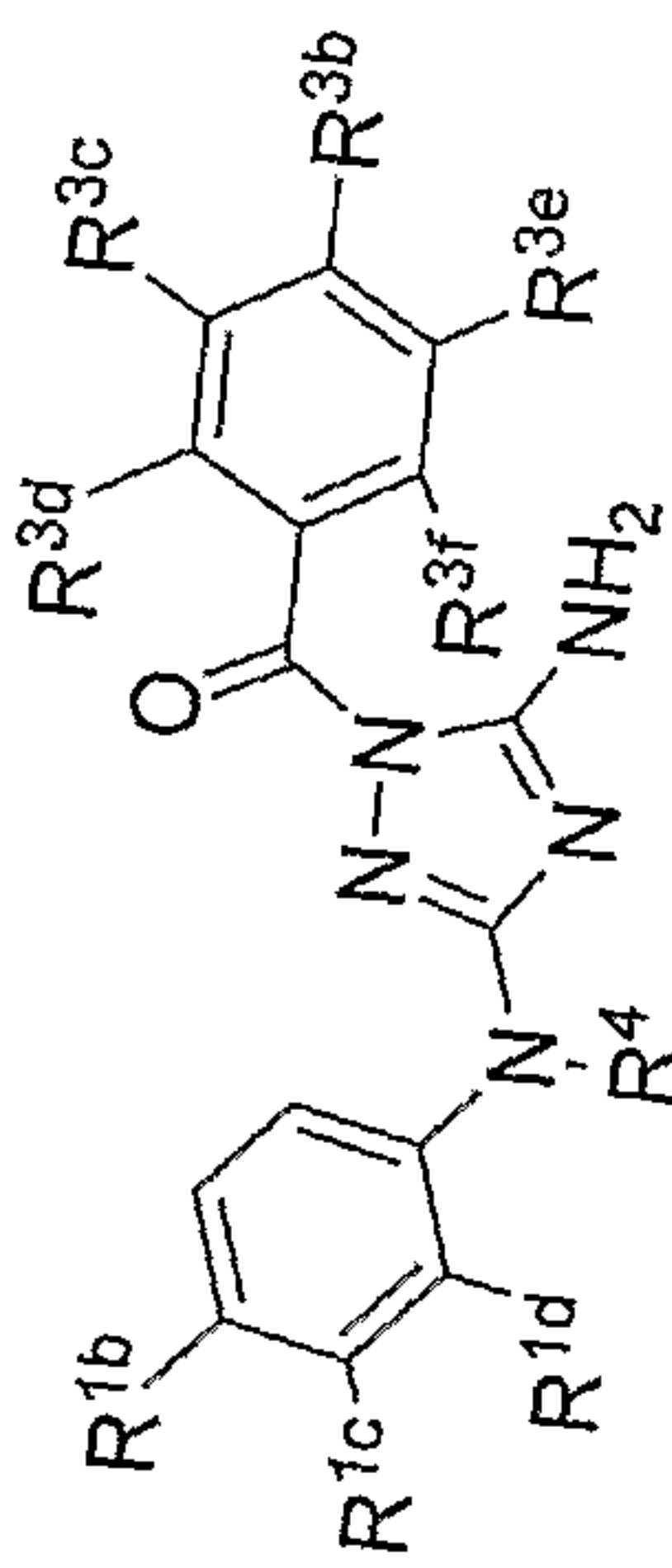
Table 1

IC₅₀ activity: A = < 1 μM
 B = 1 to 10 μM
 C = > 10 to 20 μM
 D = > 20 μM



Cpd #	Compound Name	R ^{1b}	R ^{1c}	R ^{1d}	R ⁴	R ^{3b}	R ^{3c}	R ^{3d}	R ^{3e}	R ^{3f}	IC ₅₀
151	5-amino-3-[4-(cyclopentoxyl)phenyl]phenyl-1H-1,2,4-triazole		-H	-H	-H		-H	-H	-H	-H	D
152	5-amino-1-(4-(iso-propoxy)phenyl)carbonyl-3-[4-(2,2,2-trifluoroethoxy)phenyl]phenyl-1H-1,2,4-triazole	-OCH ₂ CF ₃	-H	-H	-H		-H	-H	-H	-H	B
153	5-amino-3-[3-(N-(2,3-dihydroxypropyl)amino)carbonylmethyl]phenyl-1H-1,2,4-triazole	-H		-H	-H	-H	-CH ₃	-H	-H	-H	C
156	5-amino-1-(3-(benzyloxy)phenyl)carbonyl-3-(1,4-benzodioxan-6-yl)amino-1H-1,2,4-triazole		-H	-H	-H	-H	-OCH ₂ Ph	-H	-H	-H	B
157	5-amino-1-(4-(isopropoxy)phenyl)carbonyl-3-[4-(methoxycarbonylmethoxy)phenyl]phenyl-1H-1,2,4-triazole		-H	-H	-H		-H	-H	-H	-H	B

Table 1

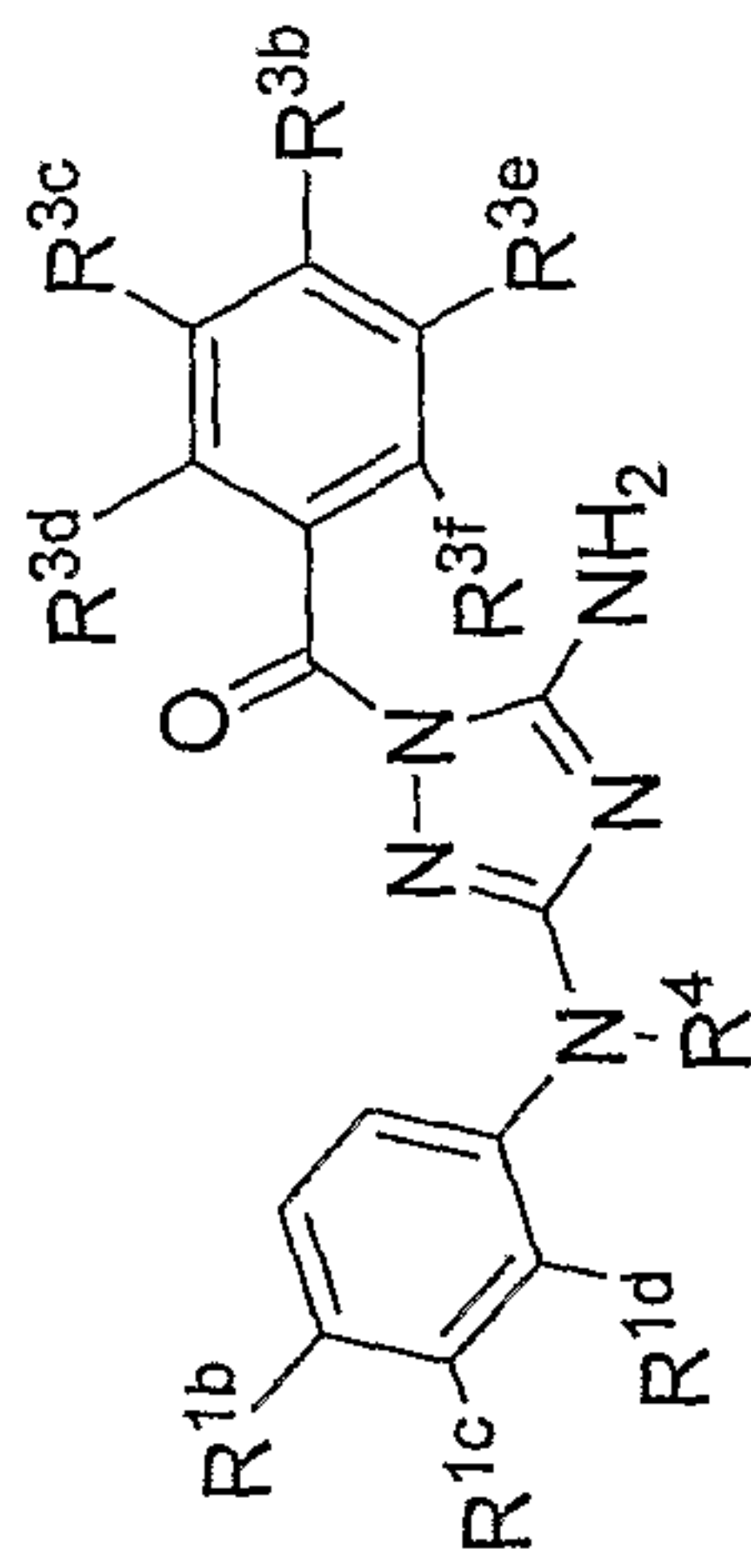


IC₅₀ activity: A = < 1 μM
B = 1 to 10 μM
C = > 10 to 20 μM
D = > 20 μM

Cpd #	Compound Name	R ^{1b}	R ^{1c}	R ^{1d}	R ⁴	R ^{3b}	R ^{3c}	R ^{3d}	R ^{3e}	R ^{3f}	IC ₅₀
158	5-amino-3-[4-[2-(1,3-dioxolan-2-yl)ethoxy]phenylamino]-1-(4-(isopropoxy)phenyl)carbonyl-1H-1,2,4-triazole		-H	-H	-H		-H	-H	-H	-H	B
159	5-amino-1-(4-(isopropoxy)phenylcarbonyl)-3-[4-[2-(morpholin-4-yl)ethoxy]phenylamino]-1H-1,2,4-triazole		-H	-H	-H		-H	-H	-H	-H	A
162	5-amino-3-(1,4-benzodioxan-6-yl)amino-1-(4-(hydroxy)phenyl)carbonyl-1H-1,2,4-triazole		-H	-H	-H	-OH	-H	-H	-H	-H	B
163	5-amino-1-(4-(isopropoxy)phenylcarbonyl)-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole		-H	-H	-H		-H	-H	-H	-H	A

Table 1

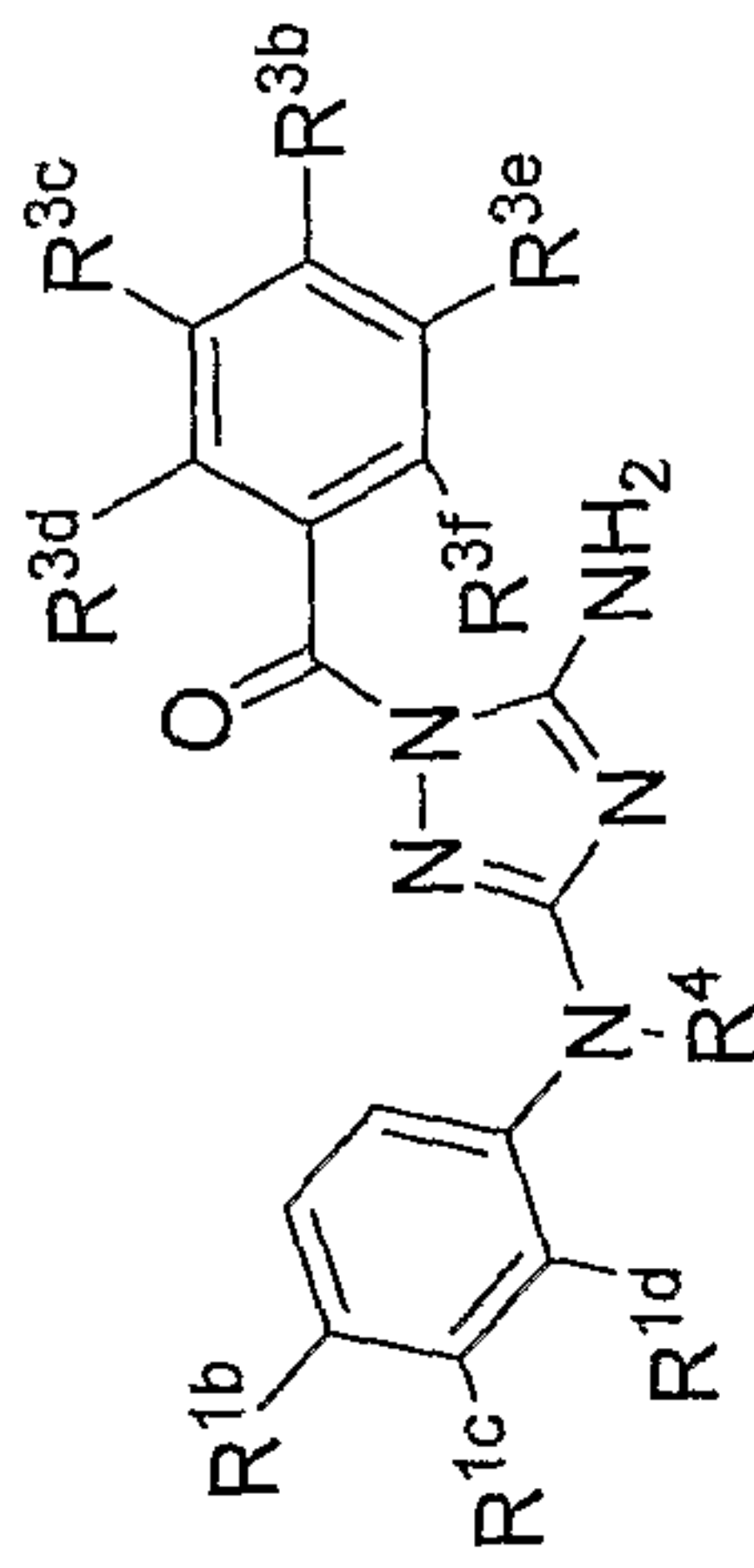
IC₅₀ activity: A = < 1 μM
 B = 1 to 10 μM
 C = >10 to 20 μM
 D = > 20 μM



Cpd #	Compound Name	R ^{1b}	R ^{1c}	R ^{1d}	R ⁴	R ^{3b}	R ^{3c}	R ^{3d}	R ^{3e}	R ^{3f}	IC ₅₀
165	5-amino-3-[3-[cyclohexylaminocarbonylmethoxy]-phenylamino]-1-(3-(methyl)phenyl)carbonyl-1H-1,2,4-triazole	-H		-H	-H	-H	-CH ₃	-H	-H	-H	D
166	5-amino-3-(1,4-benzodioxan-6-yl)amino-1-(3-(hydroxy)phenyl)carbonyl-1H-1,2,4-triazole			-H	-H	-H	-OH	-H	-H	-H	B
210	5-amino-1-[3-[2-(1,3-dioxolan-2-yl)ethoxy]phenylcarbonyl-3-(1,4-benzodioxan-6-yl)amino-1H-1,2,4-triazole			-H	-H	-H		-H	-H	-H	B
211	5-amino-3-[2-(hydroxy)phenylamino]-1-(4-methylphenyl)carbonyl-1H-1,2,4-triazole	-H	-H	-OH	-H	-CH ₃	-H	-H	-H	-H	D
212	5-amino-1-(3-(methylphenyl)carbonyl-3-[2-(methoxyethoxy)methoxy]phenylamino)-1H-1,2,4-triazole	-H		-H	-H	-H	-CH ₃	-H	-H	-H	B

Table 1

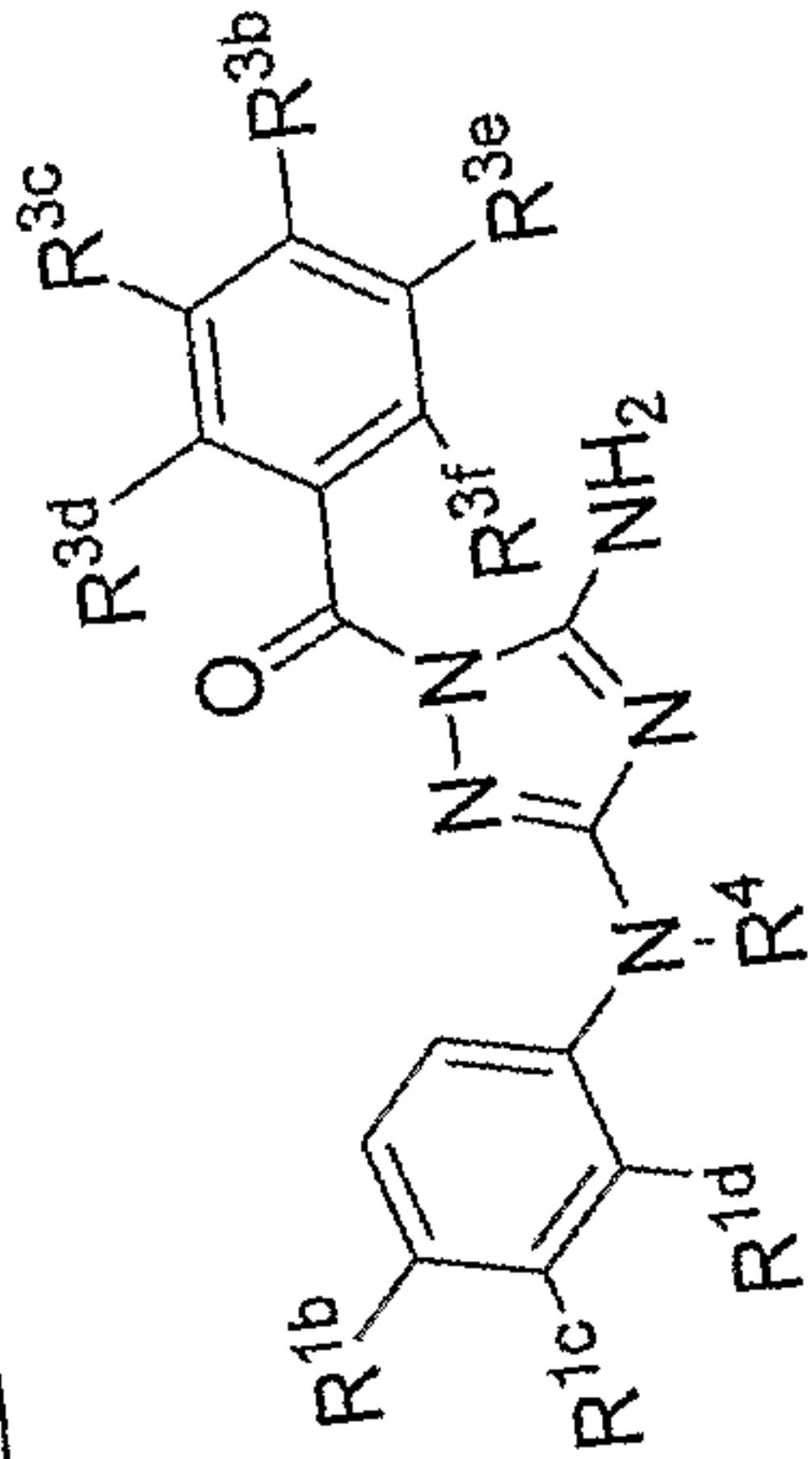
IC₅₀ activity: A = < 1 μM
 B = 1 to 10 μM
 C = >10 to 20 μM
 D = > 20 μM



Cpd #	Compound Name	R ^{1b}	R ^{1c}	R ^{1d}	R ⁴	R ^{3b}	R ^{3c}	R ^{3d}	R ^{3e}	R ^{3f}	IC ₅₀
214	5-amino-1-[4-[2-(1,3-dioxolan-2-yl)ethoxy]phenylcarbonyl-3-(1,4-benzodioxan-6-yl)amino-1H-1,2,4-triazole			-H	-H		-H	-H	-H	-H	B
216	5-amino-3-(3-methoxymethoxy)phenylamino-1-(3-methylphenyl)carbonyl-1H-1,2,4-triazole	-H		-H	-H	-H	-CH ₃	-H	-H	-H	D
217	5-amino-3-(4-chlorophenyl)amino-1-(4-chlorophenyl)carbonyl-1H-1,2,4-triazole	-Cl	-H	-H	-H	-Cl	-H	-H	-H	-H	D
218	5-amino-3-(4-bromophenyl)amino-1-(4-chlorophenyl)carbonyl-1H-1,2,4-triazole	-Br	-H	-H	-H	-Cl	-H	-H	-H	-H	B
221	5-amino-1-(3-methylphenyl)carbonyl-3-[(3-tert-butoxycarbonylmethoxy)phenyl]amin-1H-1,2,4-triazole	-H		-H	-H	-H	-CH ₃	-H	-H	-H	B

Table 1

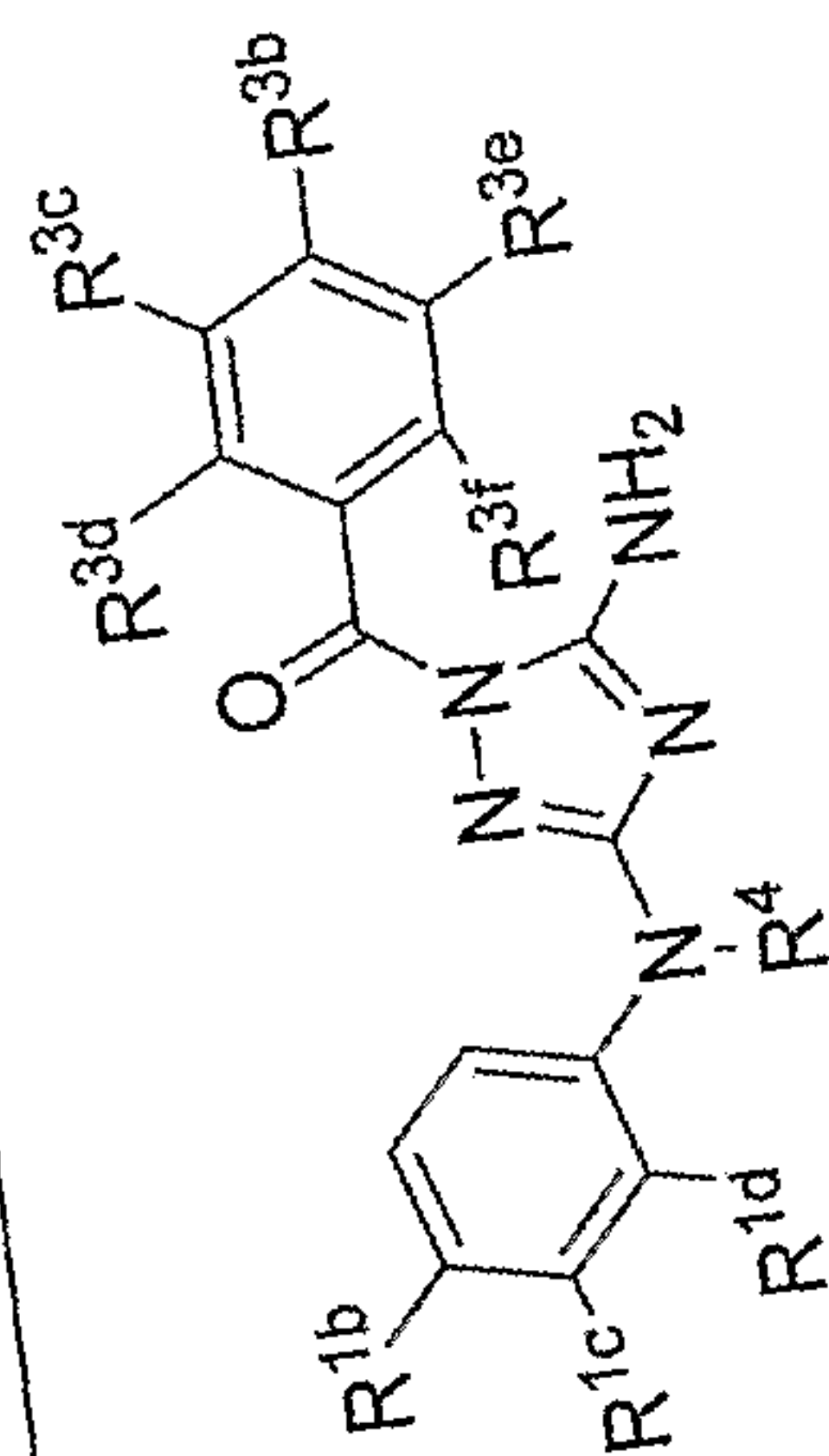
IC₅₀ activity: A = < 1 μM
B = 1 to 10 μM
C = >10 to 20 μM
D = > 20 μM



Cpd #	Compound Name	R ^{1b}	R ^{1c}	R ^{1d}	R ⁴	R ^{3b}	R ^{3c}	R ^{3d}	R ^{3e}	R ^{3f}	IC ₅₀
223	5-amino-1-(3-methylphenyl)carbonyl-3-[3-[2-(tetrahydropyran-2-yl)ethoxyaminocarbonyl]methoxy]phenylamino-1H-1,2,4-triazole	-H		-H	-H	-H	-CH ₃	-H	-H	-H	B
224	5-amino-3-(3-hydroxycarbonylmethoxy)phenylamino-1-(3-methylphenyl)carbonyl-1H-1,2,4-triazole	-H		-H	-H	-H	-CH ₃	-H	-H	-H	D
225	5-amino-3-[3-((2-hydroxyethyl)aminocarbonylmethoxy)phenyl]amino-1-(3-methylphenyl)carbonyl-1H-1,2,4-triazole	-H		-H	-H	-H	-CH ₃	-H	-H	-H	B
226	5-amino-3-(1,4-benzodioxan-6-yl)amino-1-[4-[2-(piperidin-1-yl)ethoxy]phenyl]carbonyl-1H-1,2,4-triazole		-H	-H	-H	-H	-H	-H	-H	-H	B

Table 1

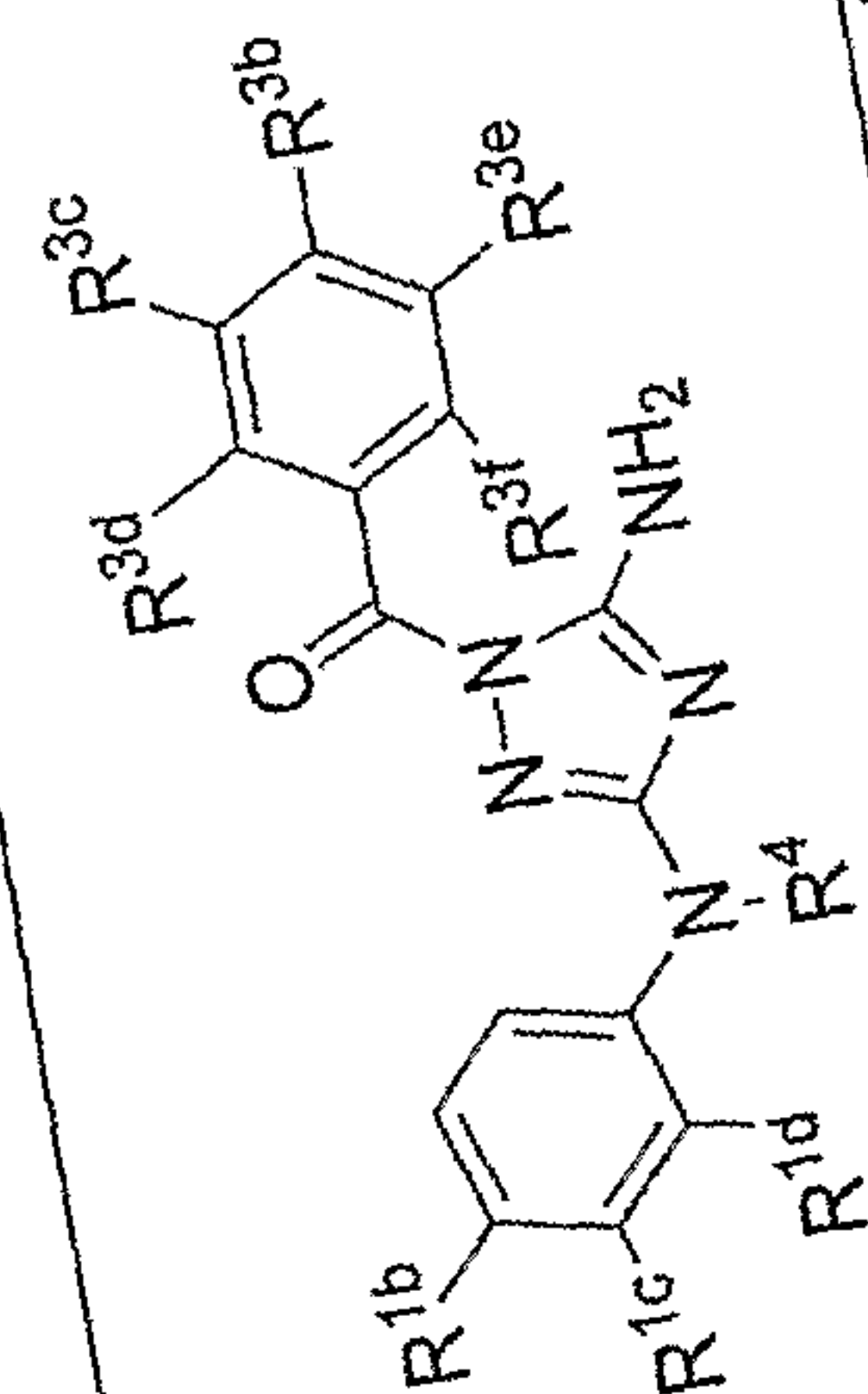
IC₅₀ activity: A = < 1 μM
B = 1 to 10 μM
C = >10 to 20 μM
D = > 20 μM



Cpd #	Compound Name	R ^{1b}	R ^{1c}	R ^{1d}	R ⁴	R ^{3b}	R ^{3c}	R ^{3d}	R ^{3e}	R ^{3f}	IC ₅₀
(1a-18)	5-amino-1-(3-methylphenyl)carbonyl-3-[3-[2-(4-morpholinyl)ethylaminocarbonylmethoxy]phenyl]amino-1H-1,2,4-triazole	-H		-H	-H	-H	-CH ₃	-H	-H	-H	B
(1a-19)	5-amino-1-(3-methylphenyl)carbonyl-3-[3-(N-tert-butoxycarbonyl)piperazin-4-ylcarbonylmethoxy]phenyl]amino-1H-1,2,4-triazole	-H		-H	-H	-H	-CH ₃	-H	-H	-H	D
228	5-amino-3-(1,4-benzodioxan-6-yl)amino-1-(3-(2,2,2-trifluoroethoxy)phenyl)carbonyl-1H-1,2,4-triazole			-H	-H	-H	-OCH ₂ CF ₃	-H	-H	-H	D

Table 1

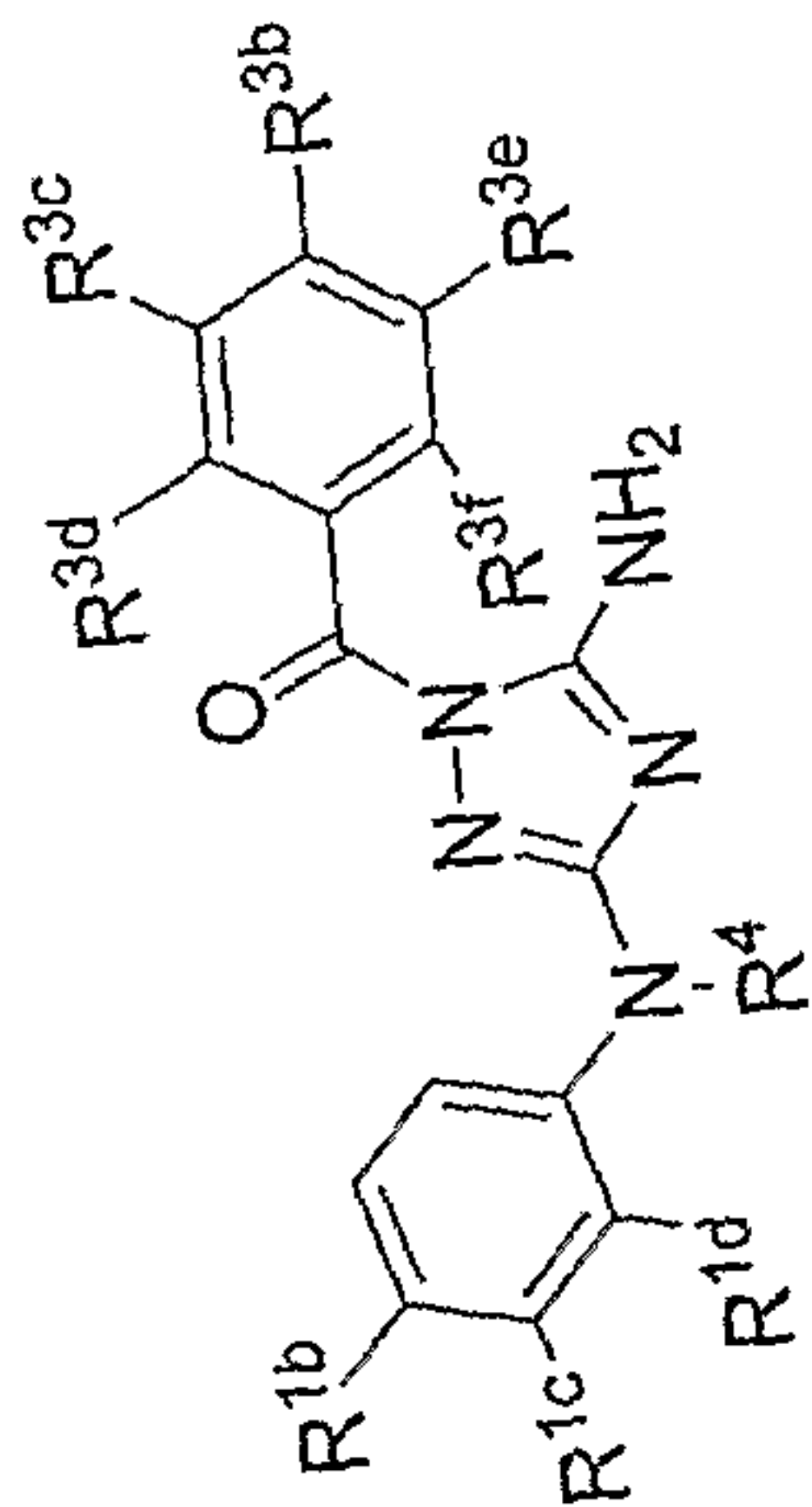
IC₅₀ activity: A = < 1 μM
 B = 1 to 10 μM
 C = > 10 to 20 μM
 D = > 20 μM



Cpd #	Compound Name	R ^{1b}	R ^{1c}	R ^{1d}	R ⁴	R ^{3b}	R ^{3c}	R ^{3d}	R ^{3e}	R ^{3f}	IC ₅₀
(1a-20)	5-amino-1-(3-methylphenyl)carbonyl-3-[3-(piperazin-4-ylcarbonylmethoxy)phenyl]amino-1H-1,2,4-triazole	-H		-H	-H	-H	-CH ₃	-H	-H	-H	B
230	5-amino-3-(1,4-benzodioxan-6-yl)amino-1-(4-(2,2,2-trifluoroethoxy)phenyl)carbonyl-1H-1,2,4-triazole			-H	-H	-OCH ₂ CF ₃	-H	-H	-H	-H	D
231	5-amino-1-(3-aminocarbonylmethoxy)phenylcarbonyl-3-(1,4-benzodioxan-6-yl)amino-1H-1,2,4-triazole			-H	-H	-H		-H	-H	-H	B
232	5-amino-3-(1,4-benzodioxan-6-yl)amino-1-(4-isopropyl)amino-1H-1,2,4-triazole			-H	-H	-CH(CH ₃) ₂	-CH ₃	-H	-H	-H	-H
234	5-amino-1-(3,4-dimethylphenyl)carbonyl-3-(1,4-benzodioxan-6-yl)amino-1H-1,2,4-triazole			-H	-H	-H	-CH ₃	-CH ₃	-H	-H	B

Table 1

IC₅₀ activity: A = < 1 μM
B = 1 to 10 μM
C = >10 to 20 μM
D = > 20 μM

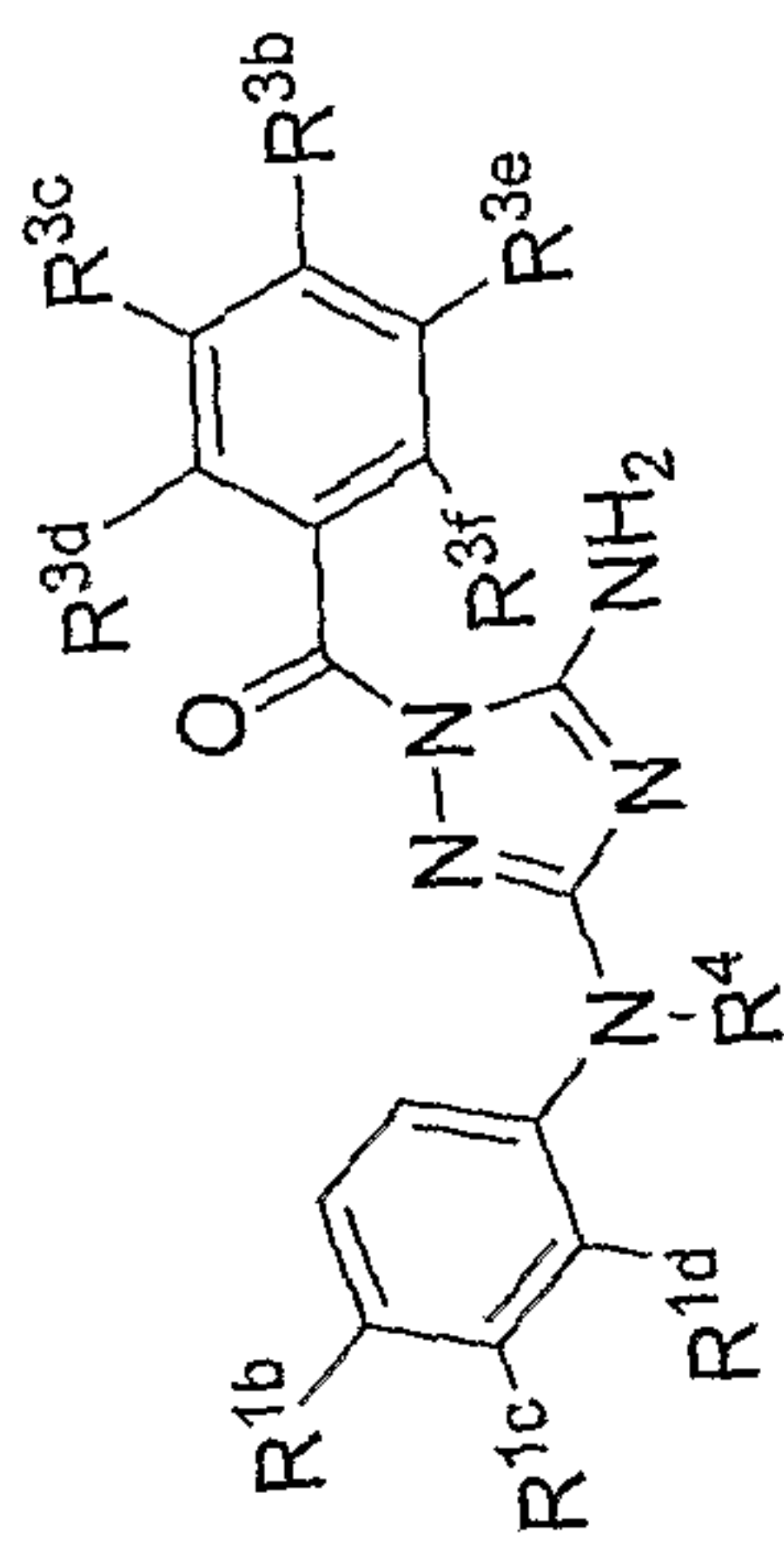


Cpd #	Compound Name	R ^{1b}	R ^{1c}	R ^{1d}	R ⁴	R ^{3b}	R ^{3c}	R ^{3d}	R ^{3e}	R ^{3f}	IC ₅₀
237	5-amino-3-(1,4-benzodioxan-6-yl)amino-1-(4-thiomethylphenyl)carbonyl-1H-1,2,4-triazole			-H	-H	-SCH ₃	-H	-H	-H	-H	B
240	5-amino-3-(1,4-benzodioxan-6-yl)amino-1-(4-nitrophenyl)carbonyl-1H-1,2,4-triazole			-H	-H	-NO ₂	-H	-H	-H	-H	D
242	5-amino-3-(1,4-benzodioxan-6-yl)amino-1-[(4-fluoro-3-methyl)phenyl]carbonyl-1H-1,2,4-triazole			-H	-H	-F	-CH ₃	-H	-H	-H	D
243	5-amino-1-(4-aminophenyl)carbonyl-3-(1,4-benzodioxan-6-yl)amino-1H-1,2,4-triazole			-H	-H	-NH ₂	-H	-H	-H	-H	B
235	5-amino-1-(3-methylphenyl)carbonyl-3-[3-(methylsulfonylmethoxy)phenyl]amino-1H-1,2,4-triazole			-H	-H	-H	-CH ₃	-H	-H	-H	B
244	5-amino-3-(1,4-benzodioxan-6-yl)amino-1-[(4-trifluoromethyl)phenyl]carbonyl-1H-1,2,4-triazole			-H	-H	-CF ₃	-H	-H	-H	-H	D

PCT/US06/34970

Table 1

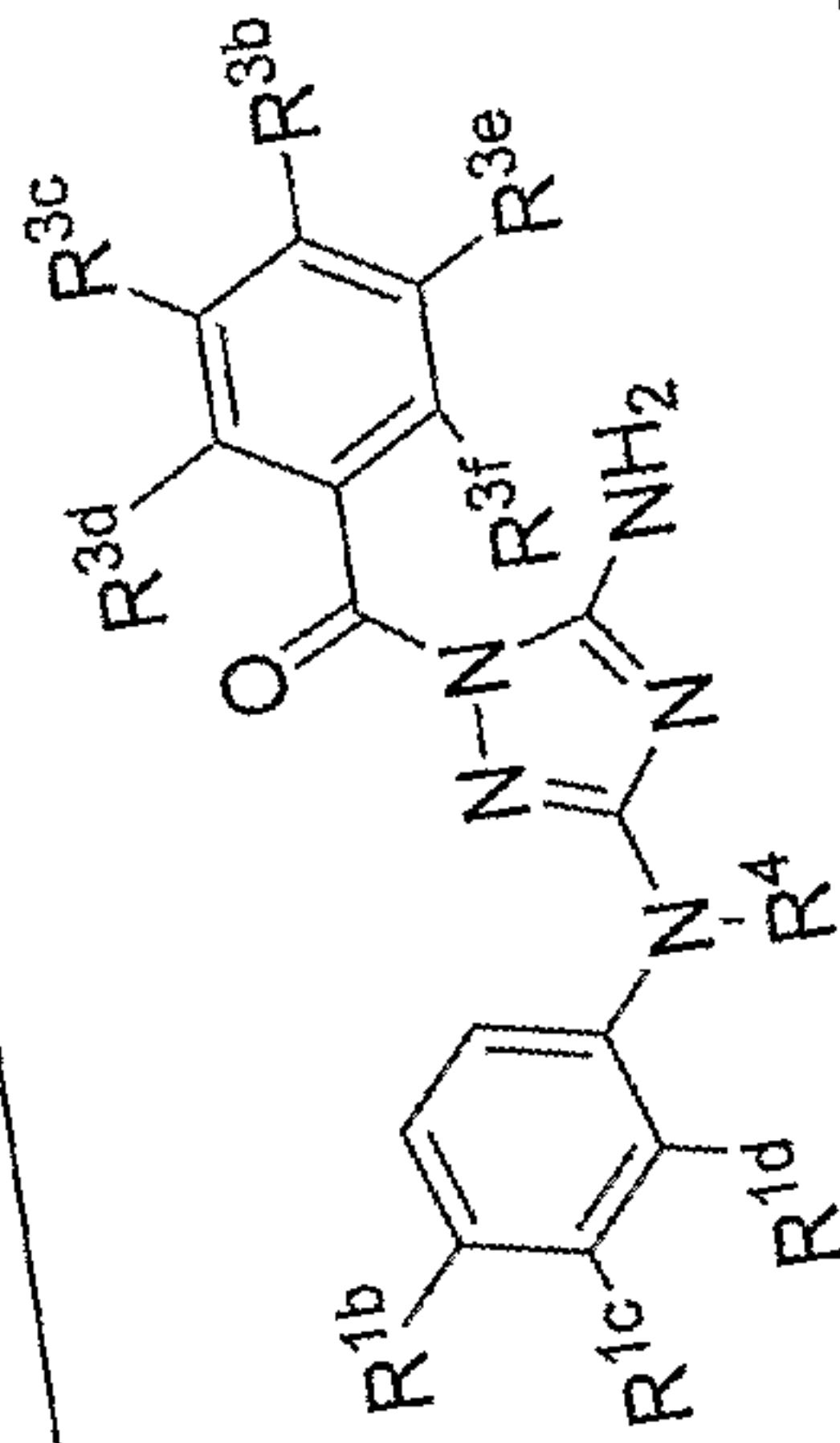
IC₅₀ activity: A = < 1 μM
 B = 1 to 10 μM
 C = >10 to 20 μM
 D = > 20 μM



Cpd #	Compound Name	R ^{1b}	R ^{1c}	R ^{1d}	R ⁴	R ^{3b}	R ^{3c}	R ^{3d}	R ^{3e}	R ^{3f}	IC ₅₀
245	5-amino-1-(4-cyanophenyl)carbonyl-3-(1,4-benzodioxan-6-yl)amino-1H-1,2,4-triazole	~O~CH ₂ CH ₂ CH ₂ ~		-H	-H	-CN	-H	-H	-H	-H	D
246	1-[(4-acetylamino)phenyl]carbonyl-5-amino-3-(1,4-benzodioxan-6-yl)amino-1H-1,2,4-triazole	~O~CH ₂ CH ₂ CH ₂ ~		-H	-H		-H	-H	-H	-H	B
247	5-amino-1-[(4-dimethylamino)phenyl]carbonyl-3-(1,4-benzodioxan-6-yl)amino-1H-1,2,4-triazole	~O~CH ₂ CH ₂ CH ₂ ~		-H	-H	-N(CH ₃) ₂	-H	-H	-H	-H	B
248	5-amino-3-(1,4-benzodioxan-6-yl)amino-1-[(4-methylsulfonyl)phenyl]carbonyl-1H-1,2,4-triazole	~O~CH ₂ CH ₂ CH ₂ ~		-H	-H	-SO ₂ CH ₃	-H	-H	-H	-H	D
249	5-amino-1-[(3-chloro-4-methyl)phenyl]carbonyl-3-(1,4-benzodioxan-6-yl)amino-1H-1,2,4-triazole	~O~CH ₂ CH ₂ CH ₂ ~		-H	-H	-CH ₃	-Cl	-H	-H	-H	D
257	5-amino-3-(1,4-benzodioxan-6-yl)amino-1-(3-methyl-4-methoxy)phenylcarbonyl-1H-1,2,4-triazole	~O~CH ₂ CH ₂ CH ₂ ~		-H	-H	-OCH ₃	-CH ₃	-H	-H	-H	B

Table 1

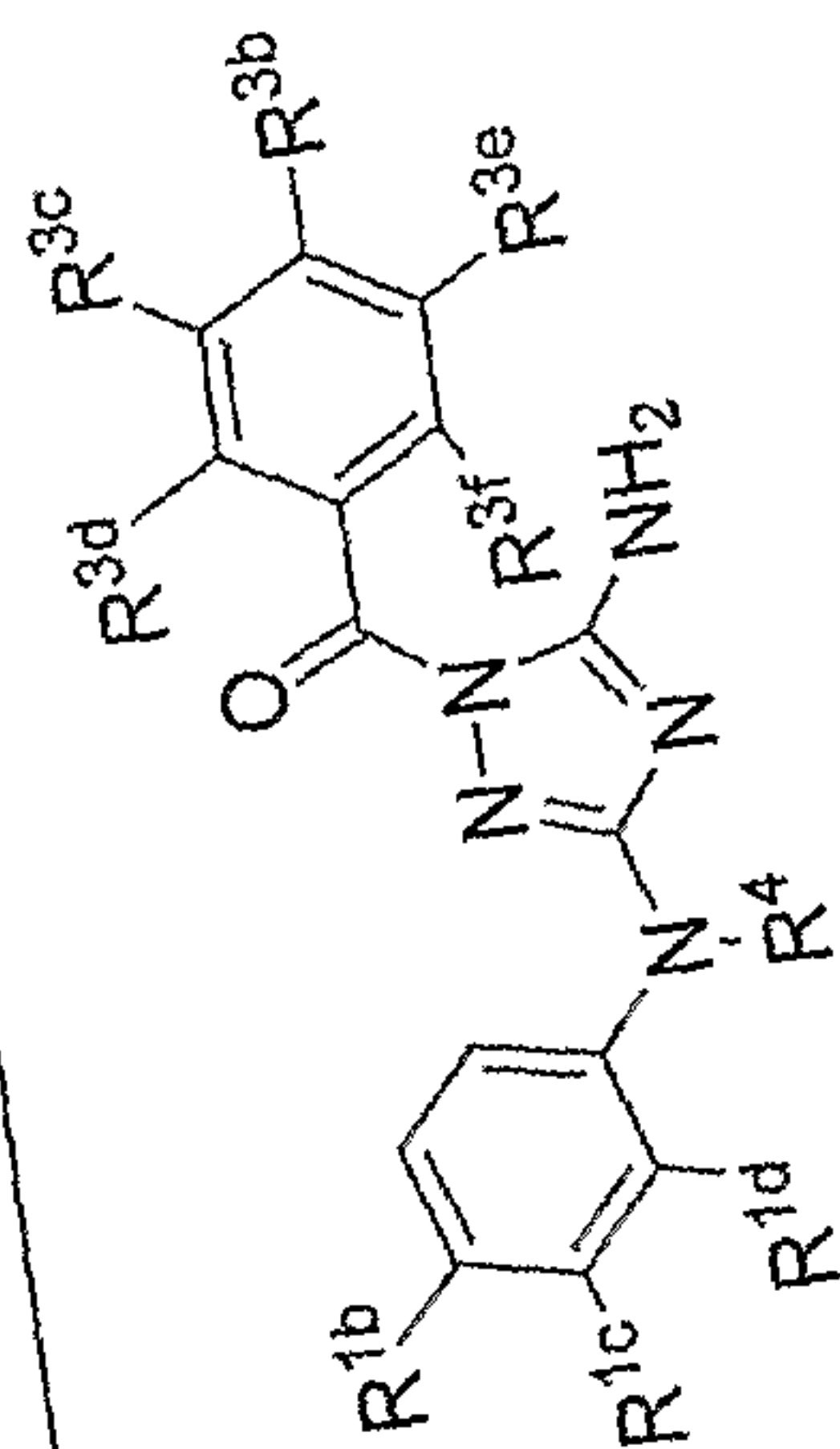
IC₅₀ activity: A = < 1 μM
 B = 1 to 10 μM
 C = >10 to 20 μM
 D = > 20 μM



Cpd #	Compound Name	R ^{1b}	R ^{1c}	R ^{1d}	R ⁴	R ^{3b}	R ^{3c}	R ^{3d}	R ^{3e}	R ^{3f}	IC ₅₀
258	5-amino-3-(1,4-benzodioxan-6-yl)amino-1-(3-methyl-4-iso-propoxy)phenylcarbonyl-1H-1,2,4-triazole		-H	-H	-H	-H	-CH ₃	-H	-H	-H	B
48	5-amino-1-(4-(iso-propoxy)phenyl)carbonyl-3-(4-(propoxy)phenyl)phenylamino]-1H-(morpholin-4-yl)phenylamino]-1H-1,2,4-triazole		-H	-H	-H	-H	-H	-H	-H	-H	A
50	5-amino-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1-(4-(tert-butoxy)phenyl)carbonyl-1H-1,2,4-triazole		-H	-H	-H	-H	-H	-H	-H	-H	A
51	5-amino-1-(4-(iso-propyl)phenyl)carbonyl-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole		-H	-H	-H	-H	-CH(CH ₃) ₂	-H	-H	-H	-H
52	5-amino-1-(4-(iso-propyl)phenyl)carbonyl-3-(4-(propyl)phenyl)phenylamino]-1H-(morpholin-4-yl)phenylamino]-1H-1,2,4-triazole		-H	-H	-H	-H	-CH(CH ₃) ₂	-H	-H	-H	-H

Table 1

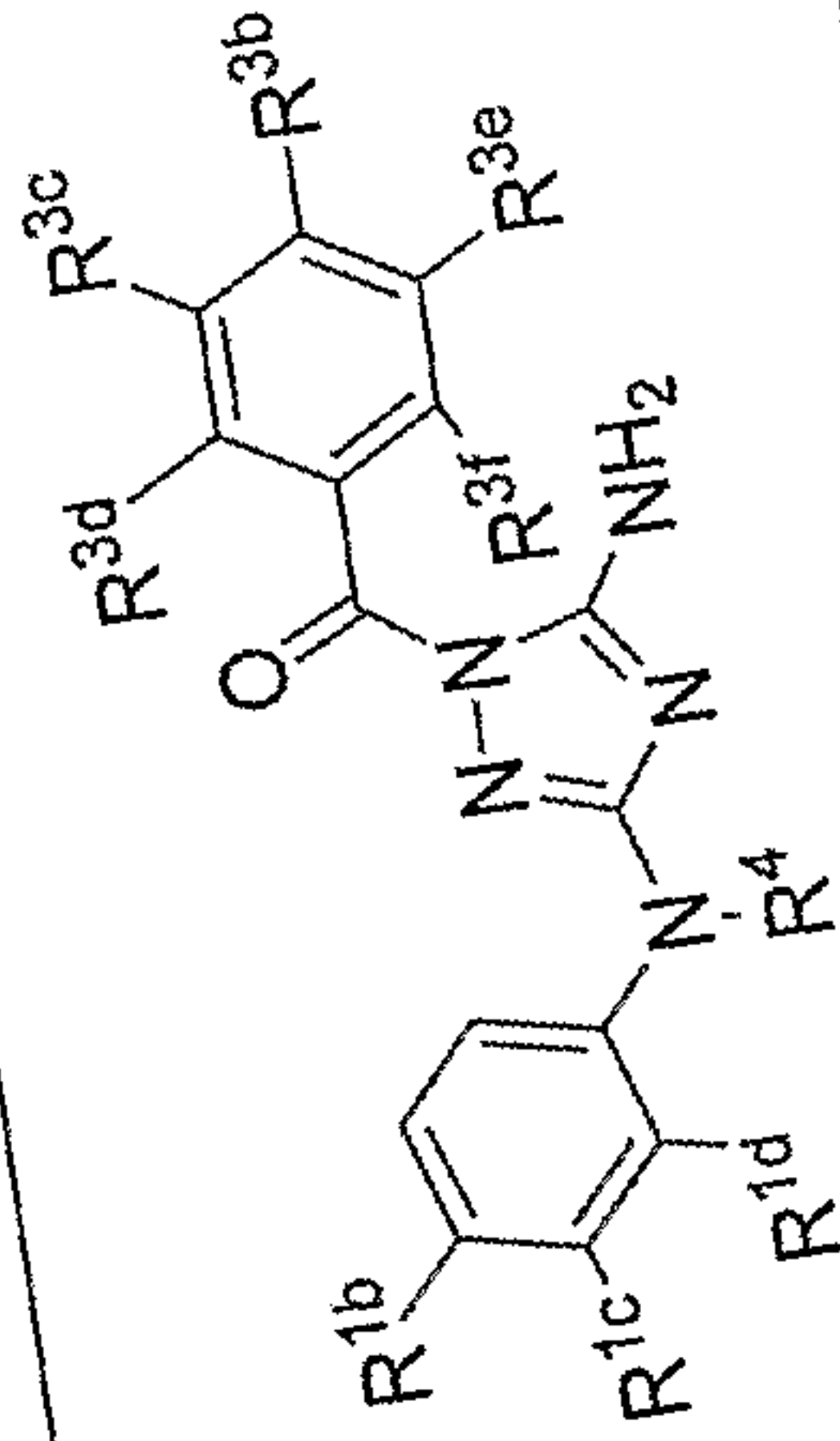
IC₅₀ activity:
 A = < 1 μM
 B = 1 to 10 μM
 C = >10 to 20 μM
 D = > 20 μM



Cpd #	Compound Name	R ^{1b}	R ^{1c}	R ^{1d}	R ⁴	R ^{3b}	R ^{3c}	R ^{3d}	R ^{3e}	R ^{3f}	IC ₅₀
53	5-amino-1-(4-(methyl)phenyl)carbonyl-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole		-H	-H	-H	-CH ₃	-H	-H	-H	-H	A
54	5-amino-1-(4-(methyl)phenyl)carbonyl-3-(4-(morpholin-4-yl)phenylamino)-1H-1,2,4-triazole		-H	-H	-H	-CH ₃	-H	-H	-H	-H	A
55	5-amino-3-[4-(isopropoxy)phenylamino]-1-(4-(methyl)phenyl)carbonyl-1H-1,2,4-triazole		-H	-H	-H	-CH ₃	-H	-H	-H	-H	A
57	5-amino-3-(4-(morpholin-4-yl)phenylamino)-1-(4-(tert-butoxy)phenyl)carbonyl-1H-1,2,4-triazole		-H	-H	-H	-H	-H	-H	-H	-H	A
59	5-amino-1-(3-(methyl)phenyl)carbonyl-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole		-H	-H	-H	-H	-CH ₃	-H	-H	-H	A

Table 1

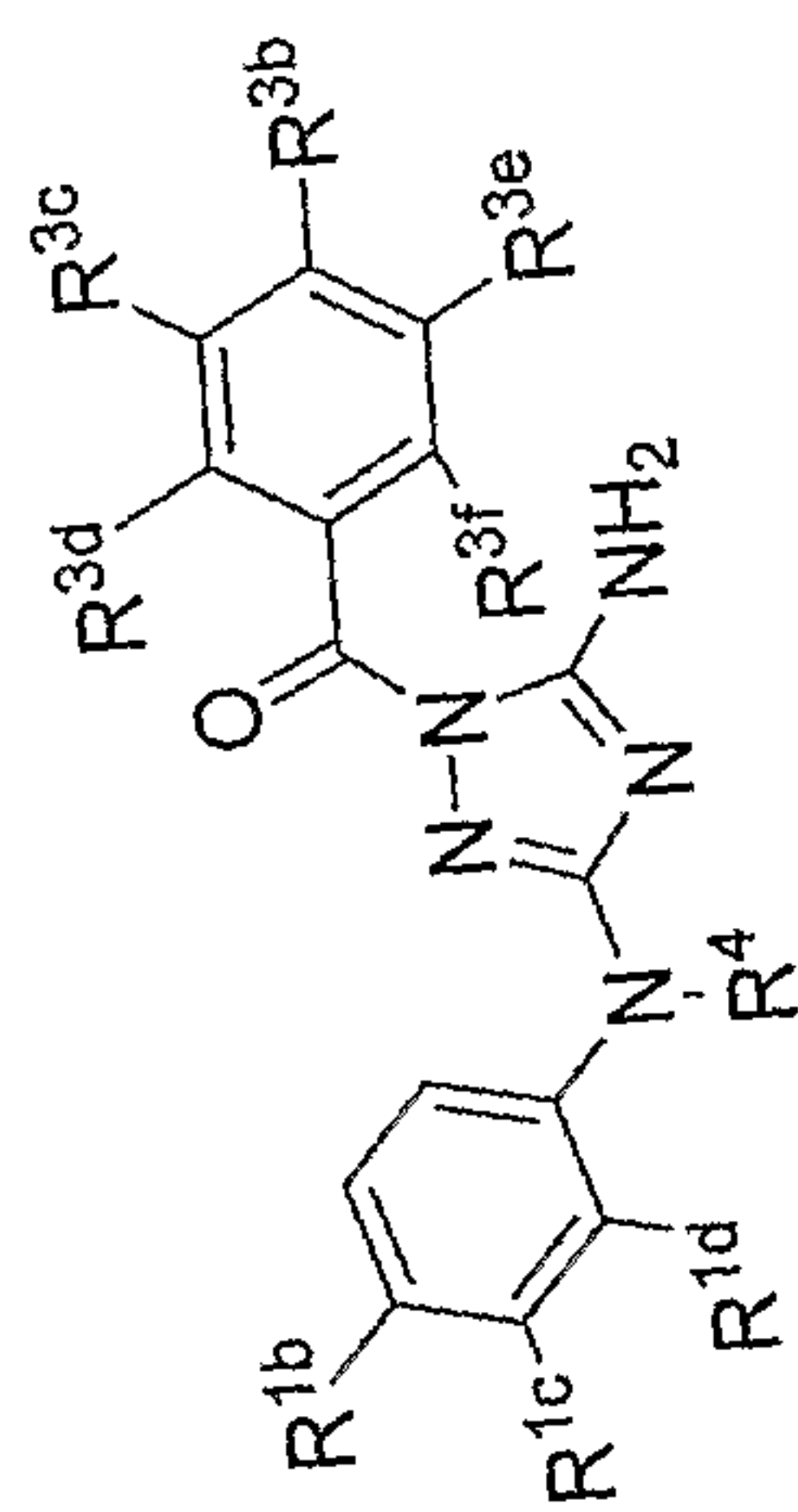
IC₅₀ activity: A = < 1 μM
 B = 1 to 10 μM
 C = >10 to 20 μM
 D = > 20 μM



Cpd #	Compound Name	R ^{1b}	R ^{1c}	R ^{1d}	R ⁴	R ^{3b}	R ^{3c}	R ^{3d}	R ^{3e}	R ^{3f}	IC ₅₀
60	5-amino-1-(4-(iso-propoxy)phenylcarbonyl)-3-[4-[2-(thiomorpholin-4-yl)ethoxy]phenylamino]-1H-1,2,4-triazole		-H	-H	-H	-H	-H	-H	-H	-H	A
61	5-amino-1-(3-(methyl)phenylcarbonyl)-3-[4-[2-(thiomorpholin-4-yl)ethoxy]phenylamino]-1H-1,2,4-triazole		-H	-H	-H	-H	-CH ₃	-H	-H	-H	B
62	5-amino-1-(4-(cyclohexyl)phenyl)carbonyl-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole		-H	-H	-H	-H	-H	-H	-H	-H	B
67	5-amino-1-(3-(hydroxy)phenyl)carbonyl-3-(4-(morpholin-4-yl)phenylamino)-1H-1,2,4-triazole		-H	-H	-H	-H	-OH	-H	-H	-H	B

Table 1

IC₅₀ activity: A = < 1 μM
B = 1 to 10 μM
C = >10 to 20 μM
D = > 20 μM



Cpd #	Compound Name	R ^{1b}	R ^{1c}	R ^{1d}	R ⁴	R ^{3b}	R ^{3c}	R ^{3d}	R ^{3e}	R ^{3f}	IC ₅₀
70	5-amino-1-(4-(aminosulfonyl)phenyl)carbonyl-3-(4-(morpholin-4-yl)phenylamino)-1H-1,2,4-triazole		-H	-H	-H	-SO ₂ NH ₂	-H	-H	-H	-H	D
71	5-amino-3-[4-(isopropoxy)phenylamino]-1-(3-(nitro)phenyl)carbonyl-1H-1,2,4-triazole		-H	-H	-H	-H	-NO ₂	-H	-H	-H	B
72	5-amino-3-(4-(morpholin-4-yl)phenylamino)-1-(3-(nitro)phenyl)carbonyl-1H-1,2,4-triazole		-H	-H	-H	-H	-NO ₂	-H	-H	-H	B
73	5-amino-1-(3-(hydroxy)phenyl)carbonyl-3-[4-(isopropoxy)phenylamino]-1H-1,2,4-triazole		-H	-H	-H	-H	-OH	-H	-H	-H	B
74	5-amino-1-(3-(chloro)phenyl)carbonyl-3-(4-(morpholin-4-yl)phenylamino)-1H-1,2,4-triazole		-H	-H	-H	-H	-Cl	-H	-H	-H	B
76	5-amino-1-(3-(chloro)phenyl)carbonyl-3-[4-(isopropoxy)phenylamino]-1H-1,2,4-triazole		-H	-H	-H	-H	-Cl	-H	-H	-H	D

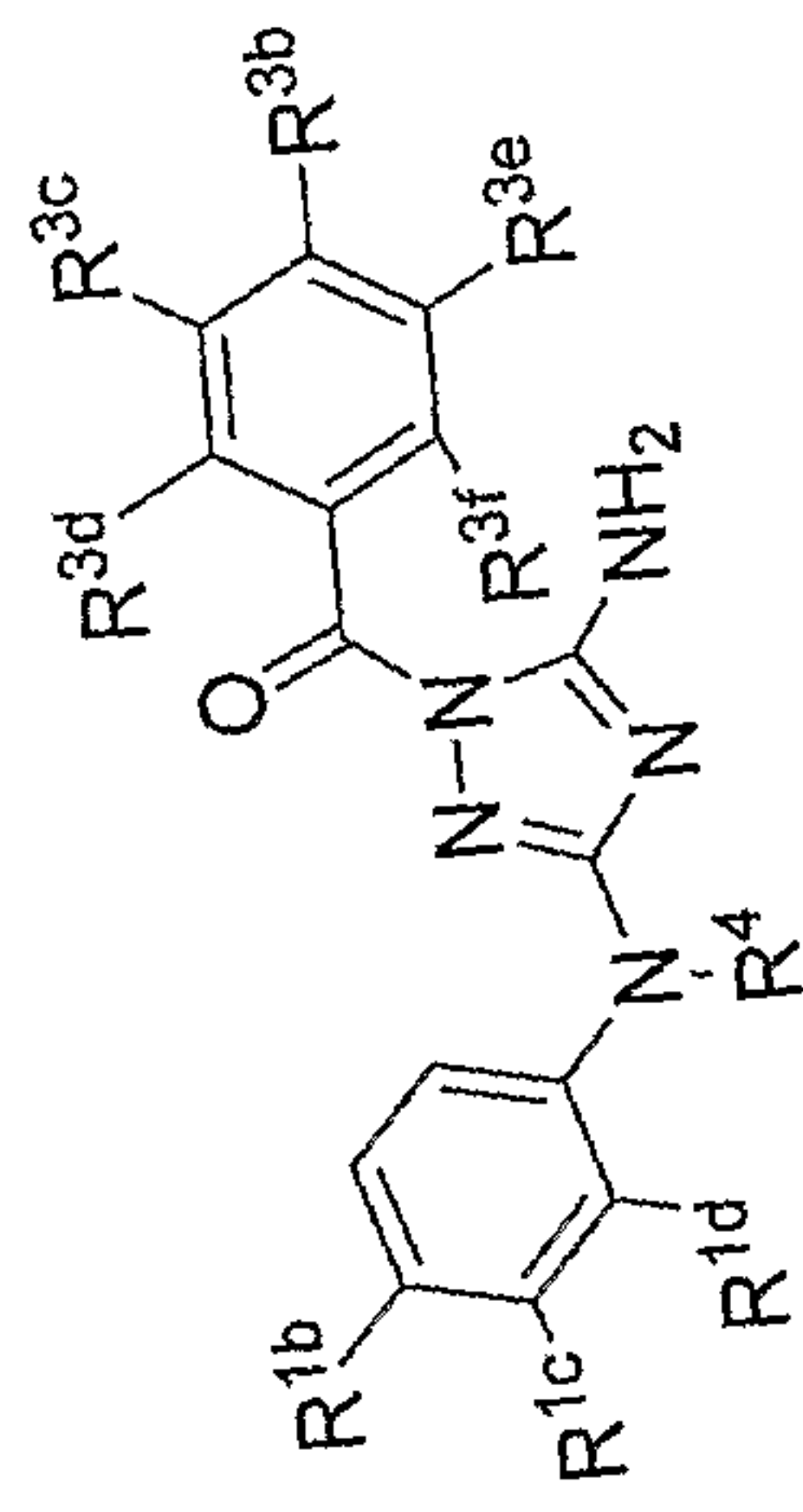
IC₅₀ activity:

- A = < 1 μM
- B = 1 to 10 μM
- C = > 10 to 20 μM
- D = > 20 μM

243

Table 1

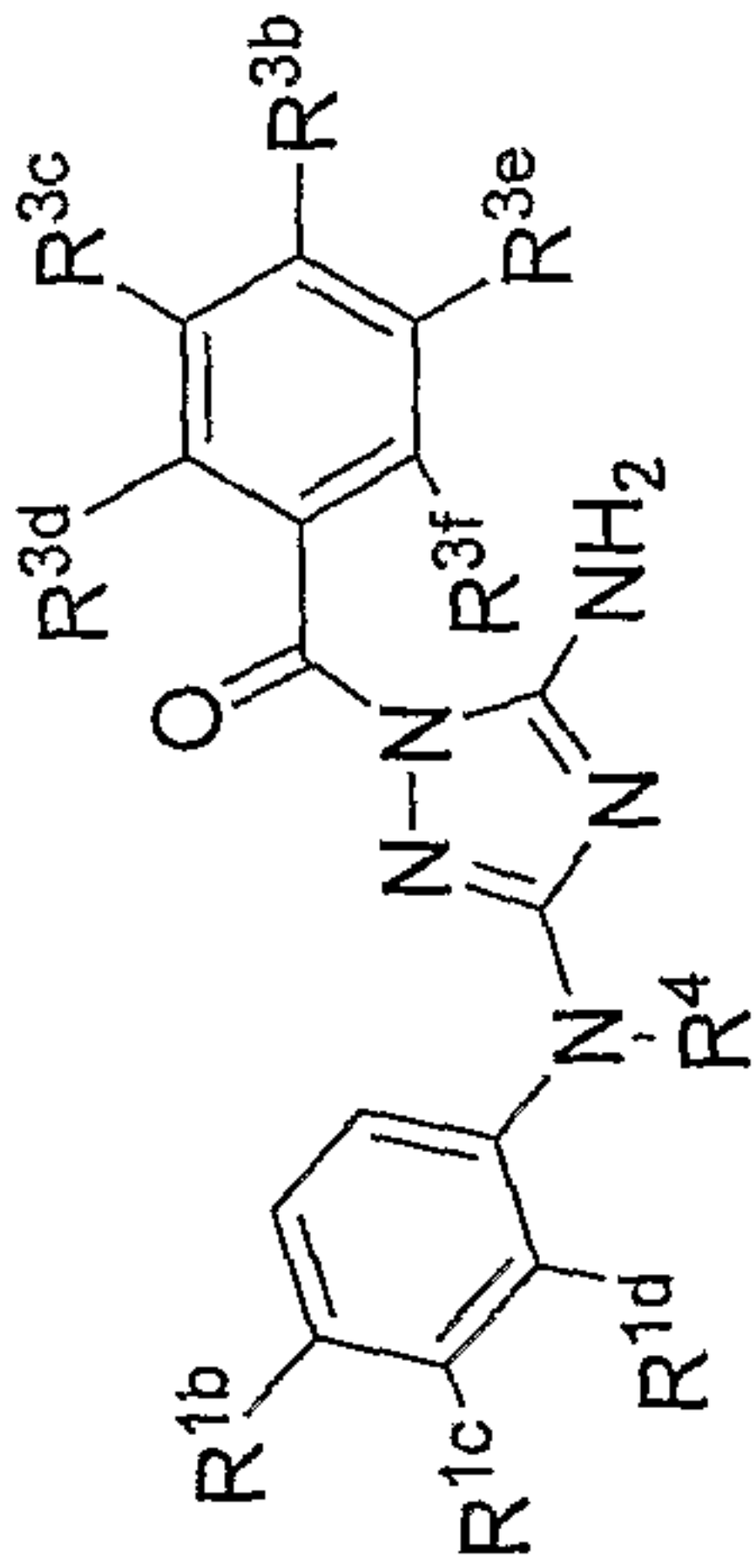
IC₅₀ activity: A = < 1 μM
B = 1 to 10 μM
C = >10 to 20 μM
D = > 20 μM



Cpd #	Compound Name	R ^{1b}	R ^{1c}	R ^{1d}	R ⁴	R ^{3b}	R ^{3c}	R ^{3d}	R ^{3e}	R ^{3f}	IC ₅₀
82	5-amino-3-[4-[2-(dimethylamino)ethoxy]phenyl-(methyl)phenyl]carbonyl-1H-1,2,4-triazole		-H	-H	-H	-CH ₃	-H	-H	-H	-H	A
83	5-amino-3-[4-[2-(dimethylamino)ethoxy]phenylamino]-1-(4-(tert-butoxy)phenyl)carbonyl-1H-1,2,4-triazole		-H	-H	-H		-H	-H	-H	-H	A
84	5-amino-3-[4-[2-(dimethylamino)propoxy]phenyl-(dimethylamino)-1-(4-(isopropoxy)phenyl)carbonyl-1H-1,2,4-triazole		-H	-H	-H		-H	-H	-H	-H	A
85	5-amino-3-[4-[2-(dimethylamino)ethoxy]phenyl-(dimethylamino)-1-(4-(isopropoxy)phenyl)carbonyl-1H-1,2,4-triazole		-H	-H	-H		-H	-H	-H	-H	A

Table 1

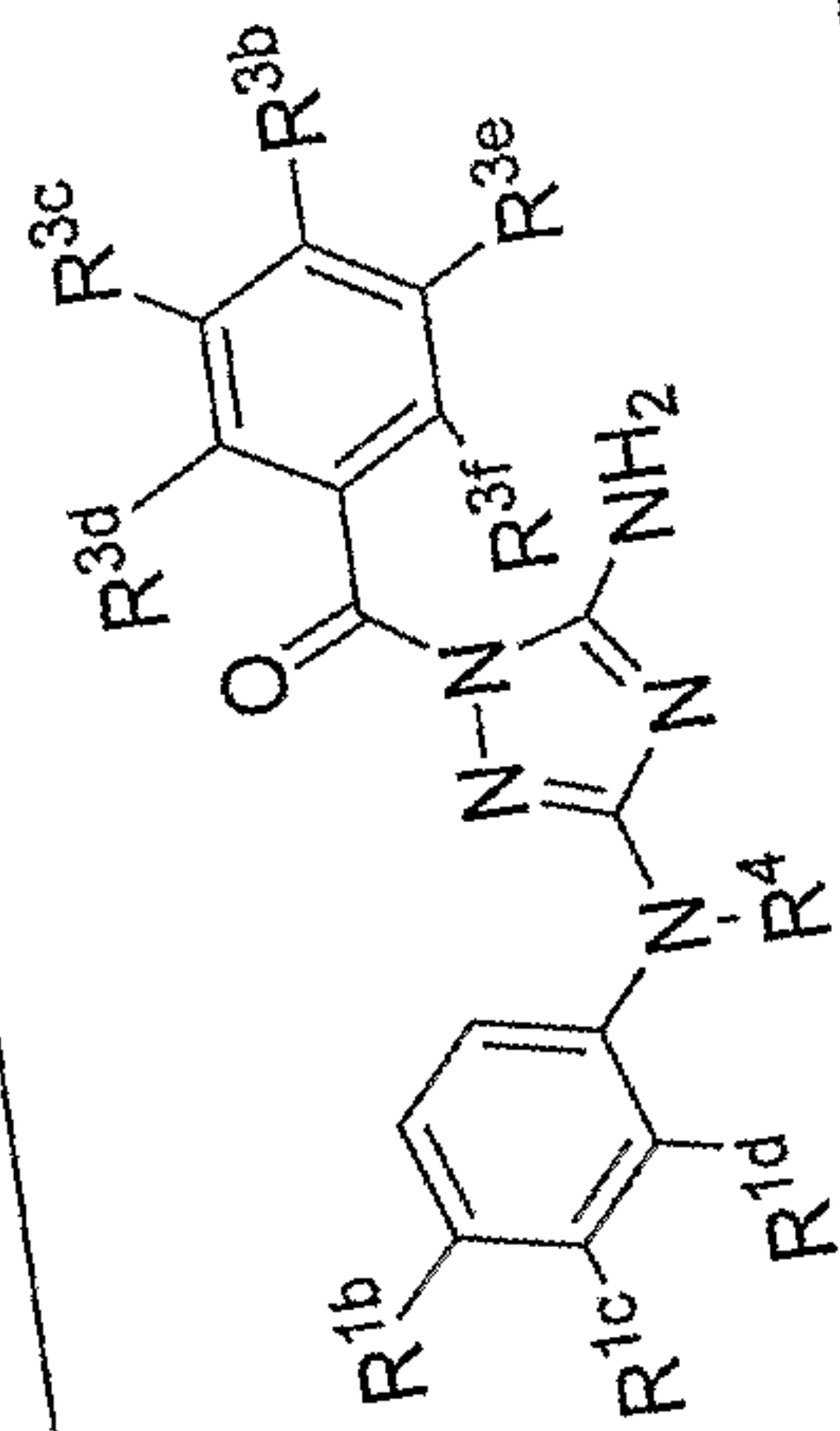
IC₅₀ activity: A = < 1 μM
B = 1 to 10 μM
C = >10 to 20 μM
D = > 20 μM



Cpd #	Compound Name	R ^{1b}	R ^{1c}	R ^{1d}	R ⁴	R ^{3b}	R ^{3c}	R ^{3d}	R ^{3e}	R ^{3f}	IC ₅₀
87	5-amino-3-[4-[2-(dimethylamino)ethoxy]phenylamino]-1-(4-(dimethylamino)phenyl)carbonyl-1H-1,2,4-triazole		-H	-H	-H	-N(CH ₃) ₂	-H	-H	-H	-H	A
88	5-amino-1-(4-(dimethylamino)phenyl)carbonyl-3-[4-[2-(dimethylamino)propoxy]phenylamino]-1H-1,2,4-triazole		-H	-H	-H	-N(CH ₃) ₂	-H	-H	-H	-H	A
89	5-amino-3-[4-[2-(dimethylamino)propoxy]phenylamino]-1-(4-(tert-butoxy)phenyl)carbonyl-1H-1,2,4-triazole		-H	-H	-H		-H	-H	-H	-H	B
91	5-amino-3-[4-[3-(dimethylamino)propoxy]phenylamino]-1-(4-(methyl)phenyl)carbonyl-1H-1,2,4-triazole		-H	-H	-H	-CH ₃	-H	-H	-H	-H	B

Table 1

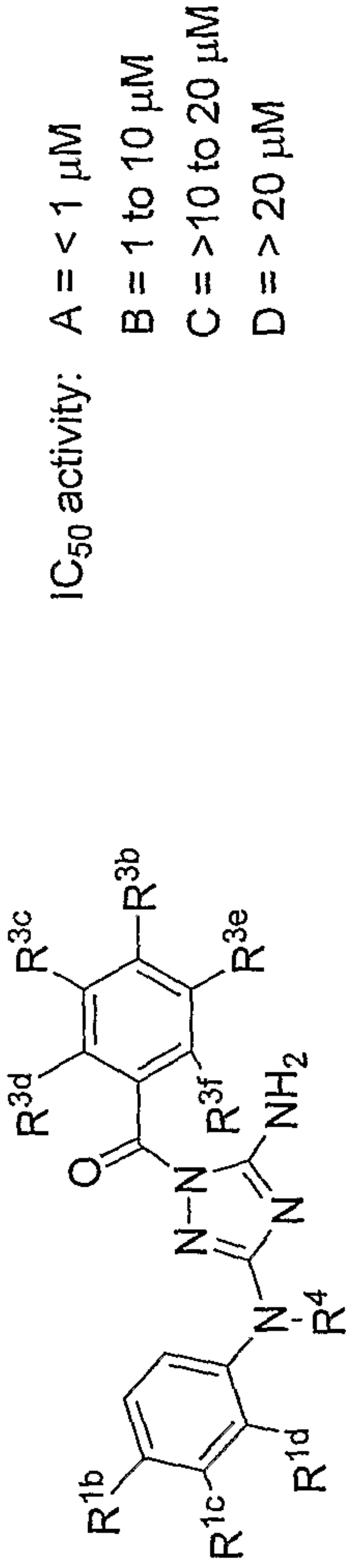
IC₅₀ activity: A = < 1 μM
 B = 1 to 10 μM
 C = >10 to 20 μM
 D = > 20 μM



Cpd #	Compound Name	R ^{1b}	R ^{1c}	R ^{1d}	R ⁴	R ^{3b}	R ^{3c}	R ^{3d}	R ^{3e}	R ^{3f}	IC ₅₀
(1a-2)	5-amino-1-(4-(iso-propoxy)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole		-H	-H	-H		-H	-H	-H	-H	A
26	5-amino-1-(4-(isopropoxy)phenyl)carbonyl-3-[4-(piperidin-1-yl)phenylamino]-1H-1,2,4-triazole		-H	-H	-H		-H	-H	-H	-H	B
13	5-amino-1-(1,3-benzodioxol-5-yl)carbonyl-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole		-H	-H	-H	-H		-H	-H	-H	A
21	5-amino-1-(3,4-(dimethoxy)phenyl)carbonyl-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole		-H	-H	-H	-H	-OCH ₃	-OCH ₃	-H	-H	A

FIGURE 1

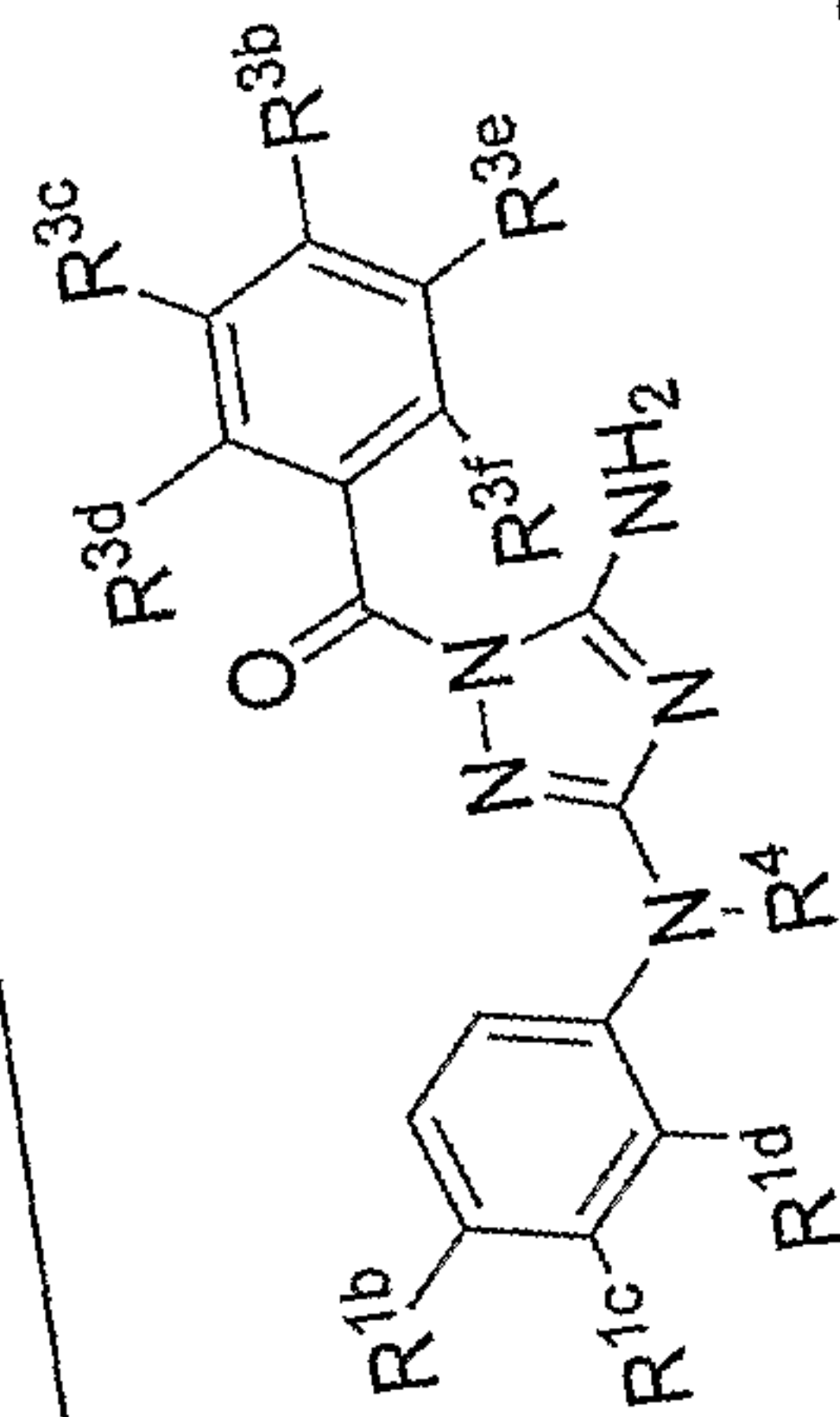
Table 1



Cpd #	Compound Name	R ^{1b}	R ^{1c}	R ^{1d}	R ⁴	R ^{3b}	R ^{3c}	R ^{3d}	R ^{3e}	R ^{3f}	IC ₅₀
16	5-amino-1-(1,3-benzodioxol-5-yl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole		-H	-H	-H			-H	-H	-H	A
9	5-amino-1-(3-methylphenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole		-H	-H	-H	-H	-CH ₃	-H	-H	-H	A
22	5-amino-1-(3,5-(dimethoxy)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole		-H	-H	-H	-H	-OCH ₃	-H	-OCH ₃	-H	A
12	5-amino-1-(4-methylphenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole		-H	-H	-H	-CH ₃	-H	-H	-H	-H	A

Table 1

IC₅₀ activity:
 A = < 1 μM
 B = 1 to 10 μM
 C = >10 to 20 μM
 D = > 20 μM



Cpd #	Compound Name	R ^{1b}	R ^{1c}	R ^{1d}	R ⁴	R ^{3b}	R ^{3c}	R ^{3d}	R ^{3e}	R ^{3f}	IC ₅₀
19	5-amino-1-(3,5-(dimethoxy)phenyl)carbonyl-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole		-H	-H	-H	-H	-OCH ₃	-H	-OCH ₃	-H	A
239	5-amino-3-(1,4-benzodioxan-6-yl)amino-1-(3,5-dimethylphenyl)carbonyl-1H-1,2,4-triazole		-H	-H	-H	-H	-CH ₃	-H	-CH ₃	-H	B
11	5-amino-1-(3-(dimethylamino)phenyl)carbonyl-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole		-H	-H	-H	-H	-N(CH ₃) ₂	-H	-H	-H	A
2	5-amino-1-(4-(dimethylamino)phenyl)carbonyl-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole		-H	-H	-H	-H	-N(CH ₃) ₂	-H	-H	-H	A

DEMANDES OU BREVETS VOLUMINEUX

**LA PRÉSENTE PARTIE DE CETTE DEMANDE OU CE BREVETS
COMPREND PLUS D'UN TOME.**

CECI EST LE TOME __1__ DE __3__

NOTE: Pour les tomes additionels, veuillez contacter le Bureau Canadien des Brevets.

JUMBO APPLICATIONS / PATENTS

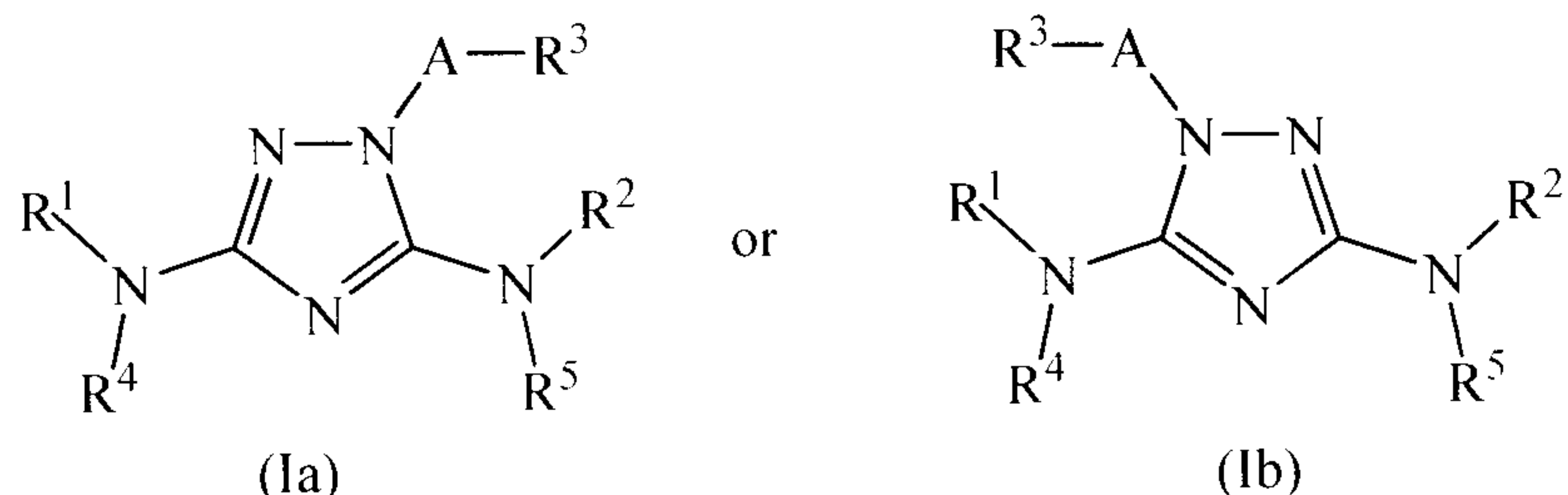
**THIS SECTION OF THE APPLICATION / PATENT CONTAINS MORE
THAN ONE VOLUME.**

THIS IS VOLUME __1__ OF __3__

NOTE: For additional volumes please contact the Canadian Patent Office.

What is claimed is:

1. A compound of formula (Ia) or formula (Ib):



wherein, independently at each occurrence:

A is -C(O)- or -C(S)-;

R¹ is aryl substituted with at least one of -R⁸-OR¹⁰ or -R⁸-O-R⁹-CN, where each R⁸ is a direct bond and R¹⁰ is selected from the group consisting of optionally substituted heterocyclalkyl, optionally substituted heteroarylalkyl and optionally substituted aralkyl, and optionally substituted with one or more substituents selected from the group consisting of halo, haloalkyl, alkyl, optionally substituted heteroaryl, optionally substituted heterocycl, and alkoxy;

R², R⁴ and R⁵ are each independently hydrogen, alkyl, aryl, aralkyl, -C(O)R¹⁰ or -C(O)N(R⁶)R⁷;

R³ is one of the following:

- a) aryl optionally substituted with one or more substituents selected from the group consisting of alkyl, halo, haloalkyl, nitro, cycloalkyl, cycloalkylalkyl, optionally substituted aryl, optionally substituted heteroaryl, optionally substituted heterocycl, -R⁸-OR¹⁰, -R⁸-C(O)OR¹⁰, -R⁸-OC(O)R¹⁰, -R⁸-O-R⁹-C(O)OR¹⁰, -R⁸-O-R⁹-C(O)N(R⁶)R⁷, -S(O)_pR⁶ (where p is 0, 1 or 2), -S(O)_tN(R⁶)R⁷ (where t is 1 or 2), -R⁸-N(R⁶)R⁷, -R⁸-N(R⁶)C(O)R¹⁰, -R⁸-N(R⁶)C(O)OR¹⁰ and -R⁸-CN; or
- b) optionally substituted heteroaryl;

R⁶ and R⁷ are each independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, haloalkyl, haloalkenyl, haloalkynyl, hydroxyalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted aralkenyl, optionally substituted aralkynyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted cycloalkylalkenyl, optionally substituted cycloalkylalkynyl, optionally substituted heterocycl, optionally substituted heterocyclalkyl, optionally substituted heterocyclalkenyl, optionally substituted heterocyclalkynyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, optionally substituted heteroarylalkenyl, optionally substituted heteroarylalkynyl, -R⁹-OR¹⁰, -R⁹-CN, -R⁹-NO₂, -R⁹-N(R¹⁰)₂, -R⁹-C(O)OR¹⁰ and -R⁹-C(O)N(R¹⁰)₂;

optionally, R^6 and R^7 , together with the nitrogen to which they are attached, form an optionally substituted *N*-heteroaryl or an optionally substituted *N*-heterocyclyl;

each R^8 present in a R^3 substituent is independently selected from the group consisting of a direct bond, an optionally substituted straight or branched alkylene chain, an optionally substituted straight or branched alkenylene chain and an optionally substituted straight or branched alkynylene chain;

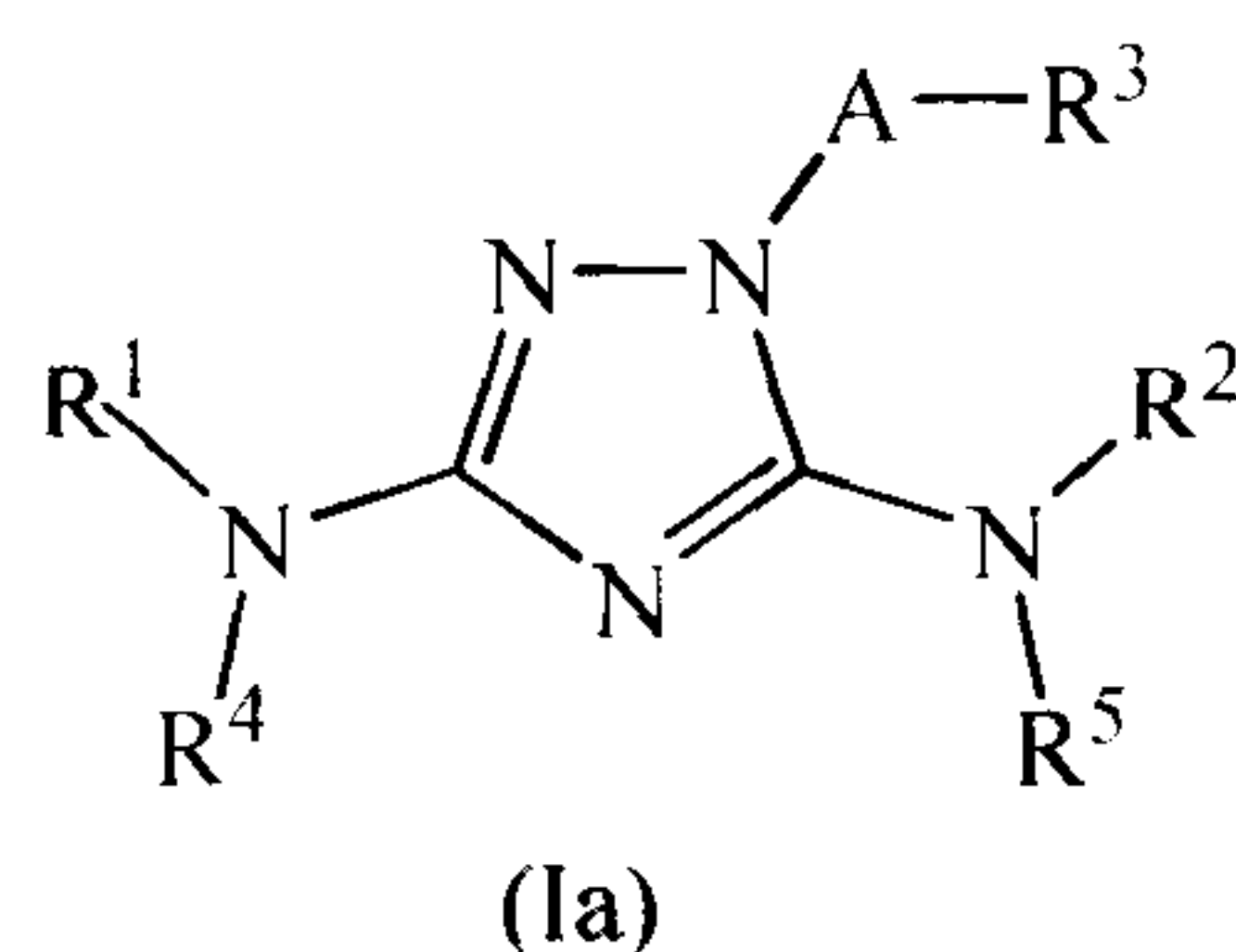
each R^9 is independently selected from the group consisting of an optionally substituted straight or branched alkylene chain, an optionally substituted straight or branched alkenylene chain and an optionally substituted straight or branched alkynylene chain; and

R^{10} present in the R^2 , R^4 and R^5 substituents and each R^{10} present in a R^3 substituent, a R^6 substituent or a R^7 substituent is independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, haloalkyl, haloalkenyl, haloalkynyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted aralkenyl, optionally substituted aralkynyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted cycloalkylalkenyl, optionally substituted cycloalkylalkynyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heterocyclylalkenyl, optionally substituted heterocyclylalkynyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, optionally substituted heteroarylalkenyl, and optionally substituted heteroarylalkynyl;

as an isolated stereoisomer or tautomer thereof or mixtures thereof,

or a pharmaceutically acceptable salt or N-oxide thereof.

2. The compound of Claim 1 of formula (Ia):



wherein:

A is -C(O)-;

R^1 is aryl substituted with at least one of $-R^8-OR^{10}$ or $-R^8-O-R^9-CN$, where each R^8 is a direct bond and R^{10} is selected from the group consisting of optionally substituted heterocyclylalkyl, optionally substituted heteroarylalkyl and optionally substituted aralkyl, and optionally substituted with one or more substituents selected from the group consisting of halo, haloalkyl, alkyl, optionally substituted heteroaryl, optionally substituted heterocyclyl, and alkoxy;

R^2 is hydrogen, alkyl or $-C(O)R^{10}$;

R^4 and R^5 are each hydrogen or alkyl;

R^3 is one of the following:

- a) aryl substituted with one or more substituents selected from the group consisting of alkyl, halo, haloalkyl, nitro, cycloalkyl, cycloalkylalkyl, optionally substituted aryl, optionally substituted heteroaryl, optionally substituted heterocyclyl, $-R^8-OR^{10}$, $-R^8-C(O)OR^{10}$, $-R^8-OC(O)R^{10}$, $-R^8-O-R^9-C(O)OR^{10}$, $-R^8-O-R^9-C(O)N(R^6)R^7$, $-S(O)_pR^6$ (where p is 0, 1 or 2), $-S(O)_tN(R^6)R^7$ (where t is 1 or 2), $-R^8-N(R^6)R^7$, $-R^8-N(R^6)C(O)R^{10}$, $-R^8-N(R^6)C(O)OR^{10}$ and $-R^8-CN$; or
- b) heteroaryl optionally substituted with one or more substituents selected from the group consisting of alkyl, oxo, and $-R^8-OR^{10}$;

R^6 and R^7 are each independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, haloalkyl, haloalkenyl, haloalkynyl, hydroxyalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted aralkenyl, optionally substituted aralkynyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted cycloalkylalkenyl, optionally substituted cycloalkylalkynyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heterocyclylalkenyl, optionally substituted heterocyclylalkynyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, optionally substituted heteroarylalkenyl, optionally substituted heteroarylalkynyl, $-R^9-OR^{10}$, $-R^9-CN$, $-R^9-NO_2$, $-R^9-N(R^{10})_2$, $-R^9-C(O)OR^{10}$ and $-R^9-C(O)N(R^{10})_2$;

optionally, R^6 and R^7 , together with the nitrogen to which they are attached, form an optionally substituted *N*-heteroaryl or an optionally substituted *N*-heterocyclyl;

each R^8 present in a R^3 substituent is independently selected from the group consisting of a direct bond, an optionally substituted straight or branched alkylene chain, an optionally substituted straight or branched alkenylene chain and an optionally substituted straight or branched alkynylene chain;

each R^9 is independently selected from the group consisting of an optionally substituted straight or branched alkylene chain, an optionally substituted straight or branched alkenylene chain and an optionally substituted straight or branched alkynylene chain; and

R^{10} present in the R^2 substituent and each R^{10} present in a R^3 substituent, a R^6 substituent or a R^7 substituent is independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, haloalkyl, haloalkenyl, haloalkynyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted aralkenyl, optionally substituted aralkynyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted cycloalkylalkenyl, optionally substituted cycloalkylalkynyl, optionally substituted heterocyclyl, optionally

substituted heterocyclalkyl, optionally substituted heterocyclalkenyl, optionally substituted heterocyclalkynyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, optionally substituted heteroarylalkenyl, and optionally substituted heteroarylalkynyl.

3. The compound of Claim 2 wherein:

A is -C(O)-;

R¹ is aryl substituted with at least one of -R⁸-OR¹⁰ or -R⁸-O-R⁹-CN, where each R⁸ is a direct bond and R¹⁰ is selected from the group consisting of optionally substituted heterocyclalkyl, optionally substituted heteroarylalkyl and optionally substituted aralkyl, and optionally substituted with one or more substituents selected from the group consisting of halo, haloalkyl, alkyl, optionally substituted heteroaryl, optionally substituted heterocycl, and alkoxy;

R², R⁴ and R⁵ are each hydrogen or alkyl;

R³ is one of the following:

- a) aryl substituted with one or more substituents selected from the group consisting of alkyl, halo, haloalkyl, nitro, cycloalkyl, cycloalkylalkyl, optionally substituted aryl, optionally substituted heteroaryl, optionally substituted heterocycl, -R⁸-OR¹⁰, -R⁸-C(O)OR¹⁰, -R⁸-OC(O)R¹⁰, -R⁸-O-R⁹-C(O)OR¹⁰, -R⁸-O-R⁹-C(O)N(R⁶)R⁷, -S(O)_pR⁶ (where p is 0, 1 or 2), -S(O)_tN(R⁶)R⁷ (where t is 1 or 2), -R⁸-N(R⁶)R⁷, -R⁸-N(R⁶)C(O)R¹⁰, -R⁸-N(R⁶)C(O)OR¹⁰ and -R⁸-CN; or
- b) heteroaryl optionally substituted with one or more substituents selected from the group consisting of alkyl, oxo, and -R⁸-OR¹⁰;

R⁶ and R⁷ are each independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, haloalkyl, haloalkenyl, haloalkynyl, hydroxyalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted aralkenyl, optionally substituted aralkynyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted cycloalkylalkenyl, optionally substituted cycloalkylalkynyl, optionally substituted heterocycl, optionally substituted heterocyclalkyl, optionally substituted heterocyclalkenyl, optionally substituted heterocyclalkynyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, optionally substituted heteroarylalkenyl, optionally substituted heteroarylalkynyl, -R⁹-OR¹⁰, -R⁹-CN, -R⁹-NO₂, -R⁹-N(R¹⁰)₂, -R⁹-C(O)OR¹⁰ and -R⁹-C(O)N(R¹⁰)₂;

optionally, R⁶ and R⁷, together with the nitrogen to which they are attached, form an optionally substituted *N*-heteroaryl or an optionally substituted *N*-heterocycl;

each R⁸ present in a R³ substituent is independently selected from the group consisting of a direct bond, an optionally substituted straight or branched alkylene chain, an optionally substituted straight or

branched alkenylene chain and an optionally substituted straight or branched alkynylene chain;
 each R^9 is independently selected from the group consisting of an optionally substituted straight or branched alkylene chain, an optionally substituted straight or branched alkenylene chain and an optionally substituted straight or branched alkynylene chain; and
 each R^{10} present in a R^3 substituent, a R^6 substituent or a R^7 substituent is independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, haloalkyl, haloalkenyl, haloalkynyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted aralkenyl, optionally substituted aralkynyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted cycloalkylalkenyl, optionally substituted cycloalkylalkynyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heterocyclylalkenyl, optionally substituted heterocyclylalkynyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, optionally substituted heteroarylalkenyl, optionally substituted heteroarylalkynyl.

4. The compound of Claim 3 wherein:

A is $-C(O)-$;

R^1 is aryl substituted with at least one of $-R^8-OR^{10}$ or $-R^8-O-R^9-CN$, where each R^8 is a direct bond and R^{10} is selected from the group consisting of optionally substituted heterocyclylalkyl, optionally substituted heteroarylalkyl and optionally substituted aralkyl, and optionally substituted with one or more substituents selected from the group consisting of halo, haloalkyl, alkyl, optionally substituted heteroaryl, optionally substituted heterocyclyl, and alkoxy;

R^2 , R^4 and R^5 are each hydrogen or alkyl;

R^3 is aryl substituted with one or more substituents selected from the group consisting of alkyl, halo, haloalkyl, nitro, cycloalkyl, cycloalkylalkyl, optionally substituted aryl, optionally substituted heteroaryl, optionally substituted heterocyclyl, $-R^8-OR^{10}$, $-R^8-C(O)OR^{10}$, $-R^8-OC(O)R^{10}$, $-R^8-O-R^9-C(O)OR^{10}$, $-R^8-O-R^9-C(O)N(R^6)R^7$, $-S(O)_pR^6$ (where p is 0, 1 or 2), $-S(O)_tN(R^6)R^7$ (where t is 1 or 2), $-R^8-N(R^6)R^7$, $-R^8-N(R^6)C(O)R^{10}$, $-R^8-N(R^6)C(O)OR^{10}$ and $-R^8-CN$;

R^6 and R^7 are each independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, haloalkyl, haloalkenyl, haloalkynyl, hydroxyalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted aralkenyl, optionally substituted aralkynyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted cycloalkylalkenyl, optionally substituted cycloalkylalkynyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heterocyclylalkenyl, optionally substituted heterocyclylalkynyl, optionally substituted heteroaryl, optionally substituted

heteroarylalkyl, optionally substituted heteroarylalkenyl, optionally substituted heteroarylalkynyl, $-R^9-OR^{10}$, $-R^9-CN$, $-R^9-NO_2$, $-R^9-N(R^{10})_2$, $-R^9-C(O)OR^{10}$ and $-R^9-C(O)N(R^{10})_2$;
 optionally, R^6 and R^7 , together with the nitrogen to which they are attached, form an optionally substituted *N*-heteroaryl or an optionally substituted *N*-heterocyclyl;
 each R^8 present in a R^3 substituent is independently selected from the group consisting of a direct bond, an optionally substituted straight or branched alkylene chain, an optionally substituted straight or branched alkenylene chain and an optionally substituted straight or branched alkynylene chain;
 each R^9 is independently selected from the group consisting of an optionally substituted straight or branched alkylene chain, an optionally substituted straight or branched alkenylene chain and an optionally substituted straight or branched alkynylene chain; and
 each R^{10} present in a R^3 substituent, a R^6 substituent or a R^7 substituent is independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, haloalkyl, haloalkenyl, haloalkynyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted aralkenyl, optionally substituted aralkynyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted cycloalkylalkenyl, optionally substituted cycloalkylalkynyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heterocyclylalkenyl, optionally substituted heterocyclylalkynyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, optionally substituted heteroarylalkenyl, optionally substituted heteroarylalkynyl.

5. The compound of Claim 4 wherein:

A is $-C(O)-$;

R^1 is phenyl substituted with at least one of $-R^8-OR^{10}$ or $-R^8-O-R^9-CN$, where each R^8 is a direct bond and R^{10} is selected from the group consisting of optionally substituted heterocyclylalkyl, optionally substituted heteroarylalkyl and optionally substituted aralkyl, and optionally substituted with one or more substituents selected from the group consisting of halo, haloalkyl, alkyl, optionally substituted heteroaryl, optionally substituted heterocyclyl, and alkoxy;

R^2 , R^4 and R^5 are each hydrogen or alkyl;

R^3 is phenyl substituted with one or more substituents selected from the group consisting of alkyl, halo, haloalkyl, nitro, cycloalkyl, cycloalkylalkyl, optionally substituted aryl, optionally substituted heteroaryl, optionally substituted heterocyclyl, $-R^8-OR^{10}$, $-R^8-C(O)OR^{10}$, $-R^8-OC(O)R^{10}$, $-R^8-O-R^9-C(O)OR^{10}$, $-R^8-O-R^9-C(O)N(R^6)R^7$, $-S(O)_pR^6$ (where p is 0, 1 or 2), $-S(O)_tN(R^6)R^7$ (where t is 1 or 2), $-R^8-N(R^6)R^7$, $-R^8-N(R^6)C(O)R^{10}$, $-R^8-N(R^6)C(O)OR^{10}$, and $-R^8-CN$;

R^6 and R^7 are each independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl,

haloalkyl, haloalkenyl, haloalkynyl, hydroxyalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted aralkenyl, optionally substituted aralkynyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted cycloalkylalkenyl, optionally substituted cycloalkylalkynyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heterocyclylalkenyl, optionally substituted heterocyclylalkynyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, optionally substituted heteroarylalkenyl, optionally substituted heteroarylalkynyl, $-R^9-OR^{10}$, $-R^9-CN$, $-R^9-NO_2$, $-R^9-N(R^{10})_2$, $-R^9-C(O)OR^{10}$ and $-R^9-C(O)N(R^{10})_2$;
 optionally, R^6 and R^7 , together with the nitrogen to which they are attached, form an optionally substituted *N*-heteroaryl or an optionally substituted *N*-heterocyclyl;
 each R^8 present in a R^3 substituent is independently selected from the group consisting of a direct bond, an optionally substituted straight or branched alkylene chain, an optionally substituted straight or branched alkenylene chain and an optionally substituted straight or branched alkynylene chain;
 each R^9 is independently selected from the group consisting of an optionally substituted straight or branched alkylene chain, an optionally substituted straight or branched alkenylene chain and an optionally substituted straight or branched alkynylene chain; and
 each R^{10} present in a R^3 substituent, a R^6 substituent or a R^7 substituent is independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, haloalkyl, haloalkenyl, haloalkynyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted aralkenyl, optionally substituted aralkynyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted cycloalkylalkenyl, optionally substituted cycloalkylalkynyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heterocyclylalkenyl, optionally substituted heterocyclylalkynyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, optionally substituted heteroarylalkenyl, optionally substituted heteroarylalkynyl.

6. The compound of Claim 5 wherein:

A is $-C(O)-$;

R^1 is phenyl substituted with at least one of $-R^8-OR^{10}$ or $-R^8-O-R^9-CN$, where each R^8 is a direct bond and R^{10} is selected from the group consisting of optionally substituted heterocyclylalkyl, optionally substituted heteroarylalkyl and optionally substituted aralkyl, and optionally substituted with one or two substituents selected from the group consisting of halo, haloalkyl, alkyl, optionally substituted heteroaryl, optionally substituted heterocyclyl, and alkoxy;

R^2 , R^4 and R^5 are each hydrogen or alkyl;

R^3 is phenyl substituted with one or more substituents selected from the group consisting of alkyl, halo, haloalkyl, nitro, cycloalkyl, cycloalkylalkyl, optionally substituted aryl, optionally substituted heteroaryl, optionally substituted heterocyclyl, $-R^8-OR^{10}$, $-R^8-C(O)OR^{10}$, $-R^8-OC(O)R^{10}$, $-R^8-O-R^9-C(O)OR^{10}$, $-R^8-O-R^9-C(O)N(R^6)R^7$, $-S(O)_pR^6$ (where p is 0, 1 or 2), $-S(O)_tN(R^6)R^7$ (where t is 1 or 2), $-R^8-N(R^6)R^7$, $-R^8-N(R^6)C(O)R^{10}$, $-R^8-N(R^6)C(O)OR^{10}$ and $-R^8-CN$;

R^6 and R^7 are each independently selected from the group consisting of hydrogen, alkyl, haloalkyl, hydroxyalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, $-R^9-OR^{10}$, $-R^9-CN$, $-R^9-NO_2$, $-R^9-N(R^{10})_2$, $-R^9-C(O)OR^{10}$ and $-R^9-C(O)N(R^{10})_2$; optionally, R^6 and R^7 , together with the nitrogen to which they are attached, form an optionally substituted *N*-heteroaryl or an optionally substituted *N*-heterocyclyl;

each R^8 present in a R^3 substituent is independently selected from the group consisting of a direct bond, an optionally substituted straight or branched alkylene chain, and an optionally substituted straight or branched alkenylene chain;

each R^9 is independently selected from the group consisting of an optionally substituted straight or branched alkylene chain, or an optionally substituted straight or branched alkenylene chain; and

each R^{10} present in a R^3 substituent, a R^6 substituent or a R^7 substituent is independently selected from the group consisting of hydrogen, alkyl, haloalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heteroaryl, and optionally substituted heteroarylalkyl.

7. The compound of Claim 6 wherein:

A is $-C(O)-$;

R^1 is phenyl substituted with at least one of $-R^8-OR^{10}$, where R^8 is a direct bond and R^{10} is selected from the group consisting of optionally substituted heterocyclylalkyl, optionally substituted heteroarylalkyl and optionally substituted aralkyl, and optionally substituted with one or more substituents selected from the group consisting of halo, haloalkyl, alkyl, and alkoxy;

R^2 , R^4 and R^5 are each hydrogen or alkyl;

R^3 is phenyl substituted with one or more substituents selected from the group consisting of alkyl, halo, haloalkyl, nitro, cycloalkyl, cycloalkylalkyl, optionally substituted aryl, optionally substituted heteroaryl, optionally substituted heterocyclyl, $-R^8-OR^{10}$, $-R^8-C(O)OR^{10}$, $-R^8-OC(O)R^{10}$, $-R^8-O-R^9-C(O)OR^{10}$, $-R^8-O-R^9-C(O)N(R^6)R^7$, $-S(O)_pR^6$ (where p is 0, 1 or 2), $-S(O)_tN(R^6)R^7$

(where t is 1 or 2), $-R^8-N(R^6)R^7$, $-R^8-N(R^6)C(O)R^{10}$, $-R^8-N(R^6)C(O)OR^{10}$ and $-R^8-CN$;
 R^6 and R^7 are each independently selected from the group consisting of hydrogen, alkyl, haloalkyl, hydroxyalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, $-R^9-OR^{10}$, $-R^9-CN$, $-R^9-NO_2$, $-R^9-N(R^{10})_2$, $-R^9-C(O)OR^{10}$ and $-R^9-C(O)N(R^{10})_2$;
 optionally, R^6 and R^7 , together with the nitrogen to which they are attached, form an optionally substituted *N*-heteroaryl or an optionally substituted *N*-heterocyclyl;
 each R^8 present in a R^3 substituent is independently selected from the group consisting of a direct bond, an optionally substituted straight or branched alkylene chain, and an optionally substituted straight or branched alkenylene chain;
 each R^9 is independently selected from the group consisting of an optionally substituted straight or branched alkylene chain, or an optionally substituted straight or branched alkenylene chain; and
 each R^{10} present in a R^3 substituent, a R^6 substituent or a R^7 substituent is independently selected from the group consisting of hydrogen, alkyl, haloalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heteroaryl, and optionally substituted heteroarylalkyl.

8. The compound of Claim 7 wherein:

A is $-C(O)-$;

R^1 is phenyl substituted with at least one of $-R^8-OR^{10}$, where R^8 is a direct bond and R^{10} is selected from the group consisting of optionally substituted heterocyclylalkyl, optionally substituted heteroarylalkyl and optionally substituted aralkyl, and optionally substituted with one or more substituents selected from the group consisting of halo, haloalkyl, alkyl, and alkoxy;

R^2 , R^4 and R^5 are each hydrogen or alkyl;

R^3 is phenyl substituted with one or more substituents selected from the group consisting of alkyl, halo, haloalkyl, nitro, $-R^8-OR^{10}$, $-R^8-C(O)OR^{10}$, $-R^8-OC(O)R^{10}$, $-R^8-O-R^9-C(O)OR^{10}$, $-R^8-O-R^9-C(O)N(R^6)R^7$, $-S(O)_pR^6$ (where p is 0, 1 or 2), $-S(O)_tN(R^6)R^7$ (where t is 1 or 2), $-R^8-N(R^6)R^7$, $-R^8-N(R^6)C(O)R^{10}$, $-R^8-N(R^6)C(O)OR^{10}$ and $-R^8-CN$;

R^6 and R^7 are each independently selected from the group consisting of hydrogen, alkyl, haloalkyl, hydroxyalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heteroaryl, optionally substituted

heteroarylalkyl, $-R^9-OR^{10}$, $-R^9-CN$, $-R^9-NO_2$, $-R^9-N(R^{10})_2$, $-R^9-C(O)OR^{10}$ and $-R^9-C(O)N(R^{10})_2$; optionally, R^6 and R^7 , together with the nitrogen to which they are attached, form an optionally substituted *N*-heteroaryl or an optionally substituted *N*-heterocyclyl;

each R^8 present in a R^3 substituent is independently selected from the group consisting of a direct bond, an optionally substituted straight or branched alkylene chain, and an optionally substituted straight or branched alkenylene chain;

each R^9 is independently selected from the group consisting of an optionally substituted straight or branched alkylene chain, or an optionally substituted straight or branched alkenylene chain; and

each R^{10} present in a R^3 substituent, a R^6 substituent or a R^7 substituent is independently selected from the group consisting of hydrogen, alkyl, haloalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heteroaryl, and optionally substituted heteroarylalkyl.

9. The compound of Claim 8 wherein:

A is $-C(O)-$;

R^1 is phenyl substituted with $-R^8-OR^{10}$ and optionally substituted with halo or alkoxy, where R^8 is a direct bond and R^{10} is selected from the group consisting of 2-(pyrrolidin-1-yl)ethyl, 2-(piperidin-1-yl)ethyl, 2-(morpholin-4-yl)ethyl, 2-(1,3-dioxolan-2-yl)ethyl, 2-(thiomorpholin-4-yl)ethyl, 3-(pyrrolidin-1-yl)propyl, 2-(azepan-1-yl)ethyl, 2-(isoindolin-1-yl)ethyl, 2-(imidazol-1-yl)ethyl, 2-(pyrrolidin-2-on-1-yl)ethyl, and 2-(3-fluoropyrrolidin-1-yl)ethyl;

R^2 , R^4 and R^5 are each hydrogen or alkyl; and

R^3 is phenyl substituted with one or more substituents selected from the group consisting of alkyl, halo, haloalkyl, nitro, $-R^8-OR^{10}$, $-R^8-C(O)OR^{10}$, $-R^8-OC(O)R^{10}$, $-R^8-O-R^9-C(O)OR^{10}$, $-R^8-O-R^9-C(O)N(R^6)R^7$, $-S(O)_pR^6$ (where p is 0, 1 or 2), $-S(O)_tN(R^6)R^7$ (where t is 1 or 2), $-R^8-N(R^6)R^7$, $-R^8-N(R^6)C(O)R^{10}$, $-R^8-N(R^6)C(O)OR^{10}$ and $-R^8-CN$, where:

R^6 and R^7 are each independently selected from the group consisting of hydrogen, alkyl, haloalkyl, hydroxyalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, $-R^9-OR^{10}$, $-R^9-CN$, $-R^9-NO_2$, $-R^9-N(R^{10})_2$, $-R^9-C(O)OR^{10}$ and $-R^9-C(O)N(R^{10})_2$;

optionally, R^6 and R^7 , together with the nitrogen to which they are attached, form an optionally substituted *N*-heteroaryl or an optionally substituted *N*-heterocyclyl;

each R⁸ is independently selected from the group consisting of a direct bond, an optionally substituted straight or branched alkylene chain, and an optionally substituted straight or branched alkenylene chain;

each R⁹ is independently selected from the group consisting of an optionally substituted straight or branched alkylene chain, or an optionally substituted straight or branched alkenylene chain; and

each R¹⁰ present in a R³ substituent, a R⁶ substituent or a R⁷ substituent is independently selected from the group consisting of hydrogen, alkyl, haloalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted heterocyclyl, optionally substituted heterocyclalkyl, optionally substituted heteroaryl, and optionally substituted heteroarylalkyl.

10. The compound of Claim 9 selected from the group consisting of:

5-amino-1-(3-(*iso*-propoxy)phenyl)carbonyl-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(3-(*iso*-propoxy)phenyl)carbonyl-3-[4-[2-(morpholin-4-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(3-(methyl)phenyl)carbonyl-3-[3-[2-(morpholin-4-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-3-[3-[2-(morpholin-4-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-3-[3-[2-(1,3-dioxolan-2-yl)ethoxy]phenylamino]-1-(4-(*iso*-propoxy)phenyl)carbonyl-1H-1,2,4-triazole;

5-amino-3-[4-[2-(1,3-dioxolan-2-yl)ethoxy]phenylamino]-1-(4-(*iso*-propoxy)phenyl)carbonyl-1H-1,2,4-triazole;

5-amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-3-[4-[2-(morpholin-4-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1-(4-(*tert*-butoxy)phenyl)carbonyl-1H-1,2,4-triazole;

5-amino-1-(4-(*iso*-propyl)phenyl)carbonyl-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(4-(methyl)phenyl)carbonyl-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(3-(methyl)phenyl)carbonyl-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-3-[4-[2-(thiomorpholin-4-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(3-(methyl)phenyl)carbonyl-3-[4-[2-(thiomorpholin-4-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(4-(cyclohexyl)phenyl)carbonyl-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(3-(methoxycarbonyl)phenyl)carbonyl-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(3-(methoxy)phenyl)carbonyl-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(3,4-(dimethoxy)phenyl)carbonyl-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(3,5-(dimethoxy)phenyl)carbonyl-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(3-(dimethylamino)phenyl)carbonyl-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(4-(dimethylamino)phenyl)carbonyl-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(3-methylphenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(3,5-(dimethoxy)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(4-methylphenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1-(4-(*tert*-butoxy)phenyl)carbonyl-1H-1,2,4-triazole;

5-amino-1-(3-methoxyphenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(4-(dimethylamino)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(3-(dimethylamino)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(3,4-(dimethoxy)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1-(3-(*tert*-butoxy)phenyl)carbonyl-1H-1,2,4-

triazole;
 5-amino-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1-(3-(trifluoromethoxy)phenyl)carbonyl-1H-1,2,4-triazole;
 5-amino-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1-(4-(trifluoromethoxy)phenyl)carbonyl-1H-1,2,4-triazole;
 5-amino-3-[4-[3-(pyrrolidin-1-yl)propoxy]phenylamino]-1-(4-(*tert*-butoxy)phenyl)carbonyl-1H-1,2,4-triazole;
 5-amino-3-[4-[3-(pyrrolidin-1-yl)propoxy]phenylamino]-1-(3-(*tert*-butoxy)phenyl)carbonyl-1H-1,2,4-triazole;
 5-amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-3-[4-[3-(pyrrolidin-1-yl)propoxy]phenylamino]-1H-1,2,4-triazole;
 5-amino-1-(4-(dimethylamino)phenyl)carbonyl-3-[4-[3-(pyrrolidin-1-yl)propoxy]phenylamino]-1H-1,2,4-triazole;
 5-amino-1-(3-(dimethylamino)phenyl)carbonyl-3-[4-[3-(pyrrolidin-1-yl)propoxy]phenylamino]-1H-1,2,4-triazole;
 5-amino-1-(4-(*tert*-butyl)phenyl)carbonyl-3-[4-[2-(morpholin-4-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
 5-amino-1-(4-(*tert*-butoxy)phenyl)carbonyl-3-[4-[2-(morpholin-4-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
 5-amino-1-(4-(phenoxy)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
 5-amino-1-(4-(*tert*-butoxycarbonylamino)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
 5-amino-1-(4-(*tert*-butoxy)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenyl][methyl]amino-1H-1,2,4-triazole;
 5-amino-1-[4-((*tert*-butoxycarbonyl)aminomethyl)phenyl]carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
 5-amino-1-(4-(methylamino)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
 5-amino-1-(4-(methylthio)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
 5-amino-1-(2,6-difluorophenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
 5-amino-1-(4-(*tert*-butylcarbonylamino)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
 5-amino-1-(4-(*tert*-butyl)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-

triazole;
 5-amino-1-(4-(*tert*-butoxy)phenyl)carbonyl-3-[3-fluoro-4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
 5-amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-3-[3-fluoro-4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
 5-amino-1-(4-(*tert*-butyl)phenyl)carbonyl-3-[3-methoxy-4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
 5-amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-3-[3-methoxy-4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
 5-amino-1-(4-(*tert*-butoxy)phenyl)carbonyl-3-[3-methoxy-4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
 5-amino-1-(4-(*tert*-butyl)phenyl)carbonyl-3-[4-[2-(azepan-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
 5-amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-3-[4-[2-(azepan-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
 5-amino-1-(4-(*tert*-butoxy)phenyl)carbonyl-3-[4-[2-(azepan-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
 5-amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-3-[4-[2-(isoindolin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
 5-amino-1-(4-(*tert*-butoxy)phenyl)carbonyl-3-[4-[2-(isoindolin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
 5-amino-1-[4-(2-(morpholin-4-yl)ethoxy)phenyl]carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
 5-amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-3-[4-[2-(pyrrolidin-2-on-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
 5-amino-1-(4-(*tert*-butoxy)phenyl)carbonyl-3-[4-[2-(pyrrolidin-2-on-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
 5-amino-1-(4-(*tert*-butoxy)phenyl)carbonyl-3-[4-[2-(imidazol-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
 5-amino-1-(3-(*tert*-butoxy)phenyl)carbonyl-3-[4-[2-(imidazol-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
 5-amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-3-[4-[2-(imidazol-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
 5-amino-1-(4-(dimethylamino)phenyl)carbonyl-3-[4-[2-(imidazol-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
 5-amino-1-(3-(dimethylamino)phenyl)carbonyl-3-[4-[2-(imidazol-1-yl)ethoxy]phenylamino]-1H-1,2,4-

triazole;
 5-amino-1-(4-(*tert*-butoxy)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
 5-amino-1-(3-fluoro-4-methoxyphenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
 5-amino-1-(4-(*tert*-butoxy)phenyl)carbonyl-3-[4-[2-((*S*)-3-fluoropyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
 5-amino-1-(4-(dimethylamino)phenyl)carbonyl-3-[4-[2-((*S*)-3-fluoropyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
 5-amino-1-(3,5-difluoro-4-methoxyphenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole; and
 5-amino-3-[3-chloro-4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1-(3,5-dichlorophenyl)carbonyl-1H-1,2,4-triazole.

11. The compound of Claim 8 wherein:

A is -C(O)-;

R¹ is phenyl substituted with at least one of -R⁸-OR¹⁰, where R⁸ is a direct bond and R¹⁰ is optionally substituted aralkyl, and optionally substituted with one or more substituents selected from the group consisting of halo, haloalkyl, alkyl, and alkoxy;

R², R⁴ and R⁵ are each hydrogen or alkyl;

R³ is phenyl substituted with one or more substituents selected from the group consisting of alkyl, halo, haloalkyl, nitro, -R⁸-OR¹⁰, -R⁸-C(O)OR¹⁰, -R⁸-OC(O)R¹⁰, -R⁸-O-R⁹-C(O)OR¹⁰, -R⁸-O-R⁹-C(O)N(R⁶)R⁷, -S(O)_pR⁶ (where p is 0, 1 or 2), -S(O)_tN(R⁶)R⁷ (where t is 1 or 2), -R⁸-N(R⁶)R⁷, -R⁸-N(R⁶)C(O)R¹⁰, -R⁸-N(R⁶)C(O)OR¹⁰ and -R⁸-CN;

R⁶ and R⁷ are each independently selected from the group consisting of hydrogen, alkyl, haloalkyl, hydroxyalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, -R⁹-OR¹⁰, -R⁹-CN, -R⁹-NO₂, -R⁹-N(R¹⁰)₂, -R⁹-C(O)OR¹⁰ and -R⁹-C(O)N(R¹⁰)₂; optionally, R⁶ and R⁷, together with the nitrogen to which they are attached, form an optionally substituted *N*-heteroaryl or an optionally substituted *N*-heterocyclyl;

each R⁸ present in a R³ substituent is independently selected from the group consisting of a direct bond, an optionally substituted straight or branched alkylene chain, and an optionally substituted straight or branched alkenylene chain;

each R⁹ is independently selected from the group consisting of an optionally substituted straight or branched alkylene chain, or an optionally substituted straight or branched alkenylene chain; and each R¹⁰ present in a R³ substituent, a R⁶ substituent or a R⁷ substituent is independently selected from the group consisting of hydrogen, alkyl, haloalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted heterocyclyl, optionally substituted heterocyclalkyl, optionally substituted heteroaryl, and optionally substituted heteroarylalkyl.

12. The compound of Claim 11 selected from the group consisting of:
 5-amino-3-[3-(benzyloxy)phenylamino]-1-(4-(methyl)phenyl)carbonyl-1H-1,2,4-triazole;
 5-amino-3-[4-(benzyloxy)phenylamino]-1-(4-methylphenyl)carbonyl-1H-1,2,4-triazole;
 5-amino-3-[4-(benzyloxy)phenylamino]-1-(4-(*iso*-propoxy)phenyl)carbonyl-1H-1,2,4-triazole;
 5-amino-3-[3-(benzyloxy)phenylamino]-1-(3-(*iso*-propoxy)phenyl)carbonyl-1H-1,2,4-triazole; and
 5-amino-3-[3-(benzyloxy)phenylamino]-1-(4-(*iso*-propoxy)phenyl)carbonyl-1H-1,2,4-triazole .

13. The compound of Claim 7 wherein:
 A is -C(O)-;
 R¹ is phenyl substituted with at least one of -R⁸-OR¹⁰, where R⁸ is a direct bond and R¹⁰ is selected from the group consisting of optionally substituted heterocyclalkyl, optionally substituted heteroarylalkyl and optionally substituted aralkyl, and optionally substituted with one or more substituents selected from the group consisting of halo, haloalkyl, alkyl, and alkoxy;
 R², R⁴ and R⁵ are each hydrogen or alkyl; and
 R³ is phenyl substituted with one or more substituents selected from the group consisting of cycloalkyl, cycloalkylalkyl, optionally substituted aryl, optionally substituted heteroaryl, and optionally substituted heterocyclyl.

14. The compound of Claim 13 wherein:
 A is -C(O)-;
 R¹ is phenyl substituted with -R⁸-OR¹⁰ and optionally substituted with halo, alkyl or alkoxy, where R⁸ is a direct bond and R¹⁰ is selected from the group consisting of 2-(pyrrolidin-1-yl)ethyl, 2-(piperidin-1-yl)ethyl, 2-(morpholin-4-yl)ethyl, 2-(1,3-dioxolan-2-yl)ethyl, 2-(thiomorpholin-4-yl)ethyl, 3-(pyrrolidin-1-yl)propyl, 2-(azepan-1-yl)ethyl, 2-(isoindolin-1-yl)ethyl, 2-(imidazol-1-yl)ethyl, 2-(pyrrolidin-2-on-1-yl)ethyl, and 2-(3-fluoropyrrolidin-1-yl)ethyl;
 R², R⁴ and R⁵ are each hydrogen or alkyl; and

R³ is phenyl substituted with one or more substituents selected from the group consisting of cycloalkyl, cycloalkylalkyl, optionally substituted aryl, optionally substituted heteroaryl, and optionally substituted heterocyclyl.

15. The compound of Claim 14 selected from the group consisting of:
- 5-amino-3-[4-[2-(pyrrolidin-1-yl)ethoxy]-3-fluorophenyl]amino-1-[4-(morpholin-4-yl)phenyl]carbonyl-1H-1,2,4-triazole
- 5-amino-1-(4-(imidazol-1-yl)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
- 5-amino-1-(4-(phenyl)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
- 5-amino-1-(4-(1,2,3-thiadiazol-4-yl)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
- 5-amino-1-(4-(pyrrol-1-yl)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
- 5-amino-1-(4-(1,2,3-thiadiazol-4-yl)phenyl)carbonyl-3-[3-fluoro-4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
- 5-amino-1-(3-(thiazol-2-yl)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
- 5-amino-1-(4-(thien-2-yl)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
- 5-amino-1-(3-(thien-2-yl)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
- 5-amino-1-(4-(thien-3-yl)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
- 5-amino-1-(4-(1,2,3-thiadiazol-4-yl)phenyl)carbonyl-3-[3-methoxy-4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
- 5-amino-1-(4-(1,2,3-thiadiazol-4-yl)phenyl)carbonyl-3-[4-[2-(azepan-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
- 5-amino-1-(4-(morpholin-4-yl)phenyl)carbonyl-3-[4-[2-(isoindolin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
- 5-amino-1-(3-(morpholin-4-yl)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
- 5-amino-1-(4-(1,2,3-thiadiazol-4-yl)phenyl)carbonyl-3-[4-[2-(pyrrolidin-2-on-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(4-(morpholin-4-yl)phenyl)carbonyl-3-[4-[2-(pyrrolidin-2-on-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(3-(morpholin-4-yl)phenyl)carbonyl-3-[4-[2-(pyrrolidin-2-on-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(4-(morpholin-4-yl)phenyl)carbonyl-3-[3-methoxy-4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(3-(morpholin-4-yl)phenyl)carbonyl-3-[3-methoxy-4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(4-(morpholin-4-yl)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(4-(4-methylpiperazin-1-yl)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(4-(1,1-dioxo-thiomorpholin-4-yl)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole; and

5-amino-1-(4-(piperidin-1-yl)phenyl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole.

16. The compound of Claim 6 wherein:

A is -C(O)-;

R¹ is phenyl substituted with -R⁸-O-R⁹-CN where R⁸ is a direct bond;

R², R⁴ and R⁵ are each hydrogen;

R³ is phenyl substituted with one or more substituents selected from the group consisting of alkyl, halo, haloalkyl, nitro, cycloalkyl, cycloalkylalkyl, -R⁸-OR¹⁰, -R⁸-C(O)OR¹⁰, -R⁸-OC(O)R¹⁰, -R⁸-O-R⁹-C(O)OR¹⁰, -R⁸-O-R⁹-C(O)N(R⁶)R⁷, -S(O)_pR⁶ (where p is 0, 1 or 2), -S(O)_tN(R⁶)R⁷ (where t is 1 or 2), -R⁸-N(R⁶)R⁷, -R⁸-N(R⁶)C(O)R¹⁰, and -R⁸-CN;

R⁶ and R⁷ are each independently selected from the group consisting of hydrogen, alkyl, haloalkyl, hydroxyalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, -R⁹-OR¹⁰, -R⁹-CN, -R⁹-NO₂, -R⁹-N(R¹⁰)₂, -R⁹-C(O)OR¹⁰ and -R⁹-C(O)N(R¹⁰)₂;

each R⁸ present in a R³ substituent is independently selected from the group consisting of a direct bond, an optionally substituted straight or branched alkylene chain, and an optionally substituted straight or branched alkenylene chain;

each R⁹ is independently selected from the group consisting of an optionally substituted straight or

branched alkylene chain, or an optionally substituted straight or branched alkenylene chain; and each R^{10} present in a R^3 substituent, a R^6 substituent or a R^7 substituent is independently selected from the group consisting of hydrogen, alkyl, haloalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heteroaryl, and optionally substituted heteroarylalkyl.

17. The compound of Claim 16 wherein:

A is $-C(O)-$;

R^1 is phenyl substituted with $-R^8-O-R^9-CN$ where R^8 is a direct bond;

R^2 , R^4 and R^5 are each hydrogen;

R^3 is phenyl substituted with one or more substituents selected from the group consisting of nitro, $-R^8-OR^{10}$, $-R^8-C(O)OR^{10}$, $-R^8-OC(O)R^{10}$, $-R^8-O-R^9-C(O)OR^{10}$, $-R^8-O-R^9-C(O)N(R^6)R^7$, $-S(O)_pR^6$ (where p is 0, 1 or 2), $-S(O)_tN(R^6)R^7$ (where t is 1 or 2), $-R^8-N(R^6)R^7$, $-R^8-N(R^6)C(O)R^{10}$, and $-R^8-CN$;

R^6 and R^7 are each independently selected from the group consisting of hydrogen, alkyl, haloalkyl, hydroxyalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, $-R^9-OR^{10}$, $-R^9-CN$, $-R^9-NO_2$, $-R^9-N(R^{10})_2$, $-R^9-C(O)OR^{10}$ and $-R^9-C(O)N(R^{10})_2$;

each R^8 present in a R^3 substituent is independently selected from the group consisting of a direct bond, an optionally substituted straight or branched alkylene chain, and an optionally substituted straight or branched alkenylene chain;

each R^9 is independently selected from the group consisting of an optionally substituted straight or branched alkylene chain, or an optionally substituted straight or branched alkenylene chain; and

each R^{10} present in a R^3 substituent, a R^6 substituent or a R^7 substituent is independently selected from the group consisting of hydrogen, alkyl, haloalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heteroaryl, and optionally substituted heteroarylalkyl.

18. The compound of Claim 17 selected from the group consisting of:

5-amino-3-[4-(cyanomethoxy)phenylamino]-1-(4-(*iso*-propoxy)phenyl)carbonyl-1H-1,2,4-triazole; and
5-amino-3-[3-(cyanomethoxy)phenylamino]-1-(4-(*iso*-propoxy)phenyl)carbonyl-1H-1,2,4-triazole.

19. The compound of Claim 16 wherein:

A is -C(O)-;

R¹ is phenyl substituted with -R⁸-O-R⁹-CN where R⁸ is a direct bond;

R², R⁴ and R⁵ are each hydrogen;

R³ is phenyl substituted with one or more substituents selected from the group consisting of alkyl, halo, haloalkyl, cycloalkyl, and cycloalkylalkyl;

R⁶ and R⁷ are each independently selected from the group consisting of hydrogen, alkyl, haloalkyl, hydroxyalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, -R⁹-OR¹⁰, -R⁹-CN, -R⁹-NO₂, -R⁹-N(R¹⁰)₂, -R⁹-C(O)OR¹⁰ and -R⁹-C(O)N(R¹⁰)₂;

each R⁹ is independently selected from the group consisting of an optionally substituted straight or branched alkylene chain, or an optionally substituted straight or branched alkenylene chain; and

each R¹⁰ is independently selected from the group consisting of hydrogen, alkyl, haloalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heteroaryl, and optionally substituted heteroarylalkyl.

20. The compound of Claim 19 selected from the group consisting of:

5-amino-3-[3-(cyanomethoxy)phenylamino]-1-(4-(methyl)phenyl)carbonyl-1H-1,2,4-triazole;

5-amino-3-[3-(cyanomethoxy)phenylamino]-1-(2-(methyl)phenyl)carbonyl-1H-1,2,4-triazole; and

5-amino-3-[3-(cyanomethoxy)phenylamino]-1-(3-(methyl)phenyl)carbonyl-1H-1,2,4-triazole.

21. The compound of Claim 3 wherein:

A is -C(O)-;

R¹ is aryl substituted with at least one of -R⁸-OR¹⁰ or -R⁸-O-R⁹-CN, where each R⁸ is a direct bond and R¹⁰ is selected from the group consisting of optionally substituted heterocyclylalkyl, optionally substituted heteroarylalkyl and optionally substituted aralkyl, and optionally substituted with one or more substituents selected from the group consisting of halo, haloalkyl, alkyl, optionally substituted heteroaryl, optionally substituted heterocyclyl, and alkoxy;aralkyl;

R², R⁴ and R⁵ are each hydrogen;

R³ is heteroaryl optionally substituted with one or more substituents selected from the group consisting of alkyl, oxo, and -R⁸-OR¹⁰;

R⁶ and R⁷ are each independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl,

haloalkyl, haloalkenyl, haloalkynyl, hydroxyalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted aralkenyl, optionally substituted aralkynyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted cycloalkylalkenyl, optionally substituted cycloalkylalkynyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heterocyclylalkenyl, optionally substituted heterocyclylalkynyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, optionally substituted heteroarylalkenyl, optionally substituted heteroarylalkynyl, $-R^9-OR^{10}$, $-R^9-CN$, $-R^9-NO_2$, $-R^9-N(R^{10})_2$, $-R^9-C(O)OR^{10}$ and $-R^9-C(O)N(R^{10})_2$;
 optionally, R^6 and R^7 , together with the nitrogen to which they are attached, form an optionally substituted *N*-heteroaryl or an optionally substituted *N*-heterocyclyl;
 R^8 present in the R^3 substituent is independently selected from the group consisting of a direct bond, an optionally substituted straight or branched alkylene chain, an optionally substituted straight or branched alkenylene chain and an optionally substituted straight or branched alkynylene chain;
 each R^9 is independently selected from the group consisting of an optionally substituted straight or branched alkylene chain, an optionally substituted straight or branched alkenylene chain and an optionally substituted straight or branched alkynylene chain; and
 each R^{10} present in the R^3 substituent and in a R^6 substituent or a R^7 substituent is independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, haloalkyl, haloalkenyl, haloalkynyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted aralkenyl, optionally substituted aralkynyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted cycloalkylalkenyl, optionally substituted cycloalkylalkynyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heterocyclylalkenyl, optionally substituted heterocyclylalkynyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, optionally substituted heteroarylalkenyl, optionally substituted heteroarylalkynyl.

22. The compound of Claim 21 wherein:

A is $-C(O)-$;

R^1 is phenyl substituted with at least one of $-R^8-OR^{10}$ or $-R^8-O-R^9-CN$, where each R^8 is a direct bond and R^{10} is selected from the group consisting of optionally substituted heterocyclylalkyl, optionally substituted heteroarylalkyl and optionally substituted aralkyl, and optionally substituted with one or more substituents selected from the group consisting of halo, haloalkyl, alkyl, optionally substituted heteroaryl, optionally substituted heterocyclyl, and alkoxy;

R^2 , R^4 and R^5 are each hydrogen;

R^3 is heteroaryl optionally substituted with one or more substituents selected from the group consisting of alkyl, oxo, and $-R^8-OR^{10}$;

R^6 and R^7 are each independently selected from the group consisting of hydrogen, alkyl, haloalkyl, hydroxyalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, $-R^9-OR^{10}$, $-R^9-CN$, $-R^9-NO_2$, $-R^9-N(R^{10})_2$, $-R^9-C(O)OR^{10}$ and $-R^9-C(O)N(R^{10})_2$;

R^8 present in the R^3 substituent is independently selected from the group consisting of a direct bond, an optionally substituted straight or branched alkylene chain or an optionally substituted straight or branched alkenylene chain;

each R^9 is independently selected from the group consisting of an optionally substituted straight or branched alkylene chain or an optionally substituted straight or branched alkenylene chain; and

R^{10} present in the R^3 substituent and each R^{10} present in a R^6 substituent or a R^7 substituent is independently selected from the group consisting of hydrogen, alkyl, haloalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heteroaryl, or optionally substituted heteroarylalkyl.

23. The compound of Claim 22 wherein:

A is $-C(O)-$;

R^1 is phenyl substituted with $-R^8-OR^{10}$ and optionally substituted with halo or alkoxy, where R^8 is a direct bond and R^{10} is selected from the group consisting of 2-(pyrrolidin-1-yl)ethyl, 2-(piperidin-1-yl)ethyl, 2-(morpholin-4-yl)ethyl, 2-(1,3-dioxolan-2-yl)ethyl, 2-(thiomorpholin-4-yl)ethyl, 3-(pyrrolidin-1-yl)propyl, 2-(azepan-1-yl)ethyl, 2-(isoindolin-1-yl)ethyl, 2-(imidazol-1-yl)ethyl, 2-(pyrrolidin-2-on-1-yl)ethyl, and 2-(3-fluoropyrrolidin-1-yl)ethyl;

R^2 , R^4 and R^5 are each hydrogen;

R^3 is heteroaryl optionally substituted with one or more substituents selected from the group consisting of alkyl, oxo, and $-R^8-OR^{10}$;

R^6 and R^7 are each independently selected from the group consisting of hydrogen, alkyl, haloalkyl, hydroxyalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, $-R^9-OR^{10}$, $-R^9-CN$, $-R^9-NO_2$, $-R^9-N(R^{10})_2$, $-R^9-C(O)OR^{10}$ and $-R^9-C(O)N(R^{10})_2$;

R^8 present in the R^3 substituent is independently selected from the group consisting of a direct bond, an

optionally substituted straight or branched alkylene chain or an optionally substituted straight or branched alkenylene chain;

each R⁹ is independently selected from the group consisting of an optionally substituted straight or branched alkylene chain or an optionally substituted straight or branched alkenylene chain; and R¹⁰ present in the R³ substituent and each R¹⁰ present in a R⁶ substituent or a R⁷ substituent is independently selected from the group consisting of hydrogen, alkyl, haloalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted heterocyclyl, optionally substituted heterocyclalkyl, optionally substituted heteroaryl, or optionally substituted heteroarylalkyl.

24. The compound of Claim 23 selected from the group consisting of:

5-amino-1-(3-(*iso*-propoxy)pyridin-5-yl)carbonyl-3-[4-[2-(morpholin-4-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(2,2-dimethyl-2H-benzo[b][1,4]oxazin-3(4H)-on-6-yl)carbonyl-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(1,3-benzodioxol-5-yl)carbonyl-3-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(1,3-benzodioxol-5-yl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(1,4-benzodioxan-6-yl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(1H-indol-5-yl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(1H-indol-6-yl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(1H-indol-2-yl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(benzimidazol-6-yl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(6-(methyl)pyridin-3-yl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(pyridin-2-yl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(pyridin-4-yl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(1H-indol-6-yl)carbonyl-3-[4-[2-(morpholin-4-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(benzo[d]thiazol-6-yl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(2,3-dihydrobenzofuran-5-yl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(1H-benzo[d][1,2,3]triazol-5-yl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(3-methylthien-2-yl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(5-methylthien-2-yl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(thien-2-yl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(quinolin-6-yl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(1H-indol-6-yl)carbonyl-3-[3-fluoro-4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(1,2,3-thiadiazol-4-yl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(1H-indol-6-yl)carbonyl-3-[3-methoxy-4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(1H-indol-6-yl)carbonyl-3-[4-[2-(azepan-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(1H-indol-6-yl)carbonyl-3-[4-[2-(isoindolin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(1H-indol-3-yl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(benzo[b]thiophen-2-yl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(benzo[b]thiophen-5-yl)carbonyl-3-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(1H-indol-6-yl)carbonyl-3-[4-[2-(imidazol-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

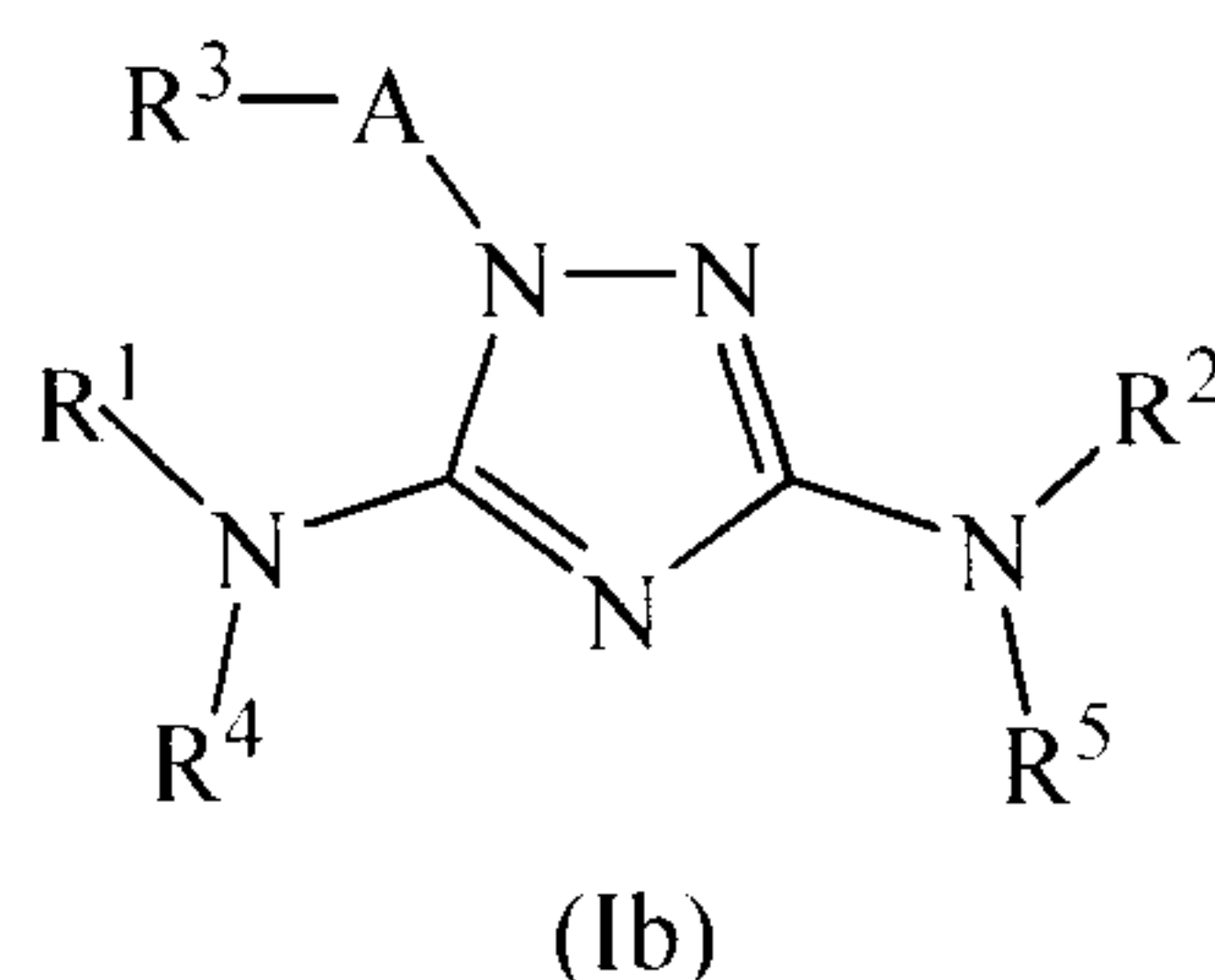
5-amino-1-(benzo[b]thiophen-5-yl)carbonyl-3-[4-[2-(imidazol-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(benzo[b]thiophen-2-yl)carbonyl-3-[4-[2-(imidazol-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

5-amino-1-(1,4-benzodioxan-6-yl)carbonyl-3-[4-[2-((*S*)-3-fluoropyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole; and

5-amino-1-(1H-indol-6-yl)carbonyl-3-[4-[2-((*S*)-3-fluoropyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole.

25. The compound of Claim 1 of formula (Ib):



wherein:

A is -C(O)-;

R¹ is aryl substituted with at least one of -R⁸-OR¹⁰ or -R⁸-O-R⁹-CN, where each R⁸ is a direct bond and R¹⁰ is selected from the group consisting of optionally substituted heterocyclalkyl, optionally substituted heteroarylalkyl and optionally substituted aralkyl, and optionally substituted with one or more substituents selected from the group consisting of halo, haloalkyl, alkyl, optionally substituted heteroaryl, optionally substituted heterocycl and alkoxy;

R² is hydrogen, alkyl or -C(O)R¹⁰;

R⁴ and R⁵ are each hydrogen or alkyl;

R³ is one of the following:

- a) aryl substituted with one or more substituents selected from the group consisting of alkyl, halo, haloalkyl, nitro, cycloalkyl, cycloalkylalkyl, optionally substituted aryl, optionally substituted heteroaryl, optionally substituted heterocycl, -R⁸-OR¹⁰, -R⁸-C(O)OR¹⁰, -R⁸-OC(O)R¹⁰, -R⁸-O-R⁹-C(O)OR¹⁰, -R⁸-O-R⁹-C(O)N(R⁶)R⁷, -S(O)_pR⁶ (where p is 0, 1 or 2), -S(O)_tN(R⁶)R⁷ (where t is 1 or 2), -R⁸-N(R⁶)R⁷, -R⁸-N(R⁶)C(O)R¹⁰ and -R⁸-CN;
- b) heteroaryl optionally substituted with one or more substituents selected from the group consisting of alkyl, oxo, and -R⁸-OR¹⁰;

R⁶ and R⁷ are each independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, haloalkyl, haloalkenyl, haloalkynyl, hydroxyalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted aralkenyl, optionally substituted aralkynyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted cycloalkylalkenyl, optionally substituted cycloalkylalkynyl, optionally substituted heterocycl, optionally substituted heterocyclalkyl, optionally substituted heterocyclalkenyl, optionally substituted heterocyclalkynyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, optionally substituted heteroarylalkenyl, optionally substituted heteroarylalkynyl, -R⁹-OR¹⁰, -R⁹-CN, -R⁹-NO₂, -R⁹-N(R¹⁰)₂, -R⁹-C(O)OR¹⁰ and -R⁹-C(O)N(R¹⁰)₂;

optionally, R⁶ and R⁷, together with the nitrogen to which they are attached, form an optionally substituted *N*-heteroaryl or an optionally substituted *N*-heterocycl;

each R^8 present in a R^3 substituent is independently selected from the group consisting of a direct bond, an optionally substituted straight or branched alkylene chain, an optionally substituted straight or branched alkenylene chain and an optionally substituted straight or branched alkynylene chain; each R^9 is independently selected from the group consisting of an optionally substituted straight or branched alkylene chain, an optionally substituted straight or branched alkenylene chain and an optionally substituted straight or branched alkynylene chain; and R^{10} present in the R^2 substituent and each R^{10} present in a R^3 substituent, a R^6 substituent or a R^7 substituent is independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, haloalkyl, haloalkenyl, haloalkynyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted aralkenyl, optionally substituted aralkynyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted cycloalkylalkenyl, optionally substituted cycloalkylalkynyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heterocyclylalkenyl, optionally substituted heterocyclylalkynyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, optionally substituted heteroarylalkenyl, optionally substituted heteroarylalkynyl.

26. The compound of Claim 25 wherein:

A is $-C(O)-$;

R^1 is aryl substituted with at least one of $-R^8-OR^{10}$ or $-R^8-O-R^9-CN$, where each R^8 is a direct bond and R^{10} is selected from the group consisting of optionally substituted heterocyclylalkyl, optionally substituted heteroarylalkyl and optionally substituted aralkyl, and optionally substituted with one or more substituents selected from the group consisting of halo, haloalkyl, alkyl, optionally substituted heteroaryl, optionally substituted heterocyclyl, and alkoxy;

R^2 , R^4 and R^5 are each hydrogen;

R^3 is one of the following:

- a) aryl substituted with one or more substituents selected from the group consisting of alkyl, halo, haloalkyl, nitro, cycloalkyl, cycloalkylalkyl, optionally substituted aryl, optionally substituted heteroaryl, optionally substituted heterocyclyl, $-R^8-OR^{10}$, $-R^8-C(O)OR^{10}$, $-R^8-OC(O)R^{10}$, $-R^8-O-R^9-C(O)OR^{10}$, $-R^8-O-R^9-C(O)N(R^6)R^7$, $-S(O)_pR^6$ (where p is 0, 1 or 2), $-S(O)_tN(R^6)R^7$ (where t is 1 or 2), $-R^8-N(R^6)R^7$, $-R^8-N(R^6)C(O)R^{10}$ and $-R^8-CN$;
- b) heteroaryl optionally substituted with one or more substituents selected from the group consisting of alkyl, oxo, and $-R^8-OR^{10}$;

R^6 and R^7 are each independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, haloalkyl, haloalkenyl, haloalkynyl, hydroxyalkyl, optionally substituted aryl, optionally

substituted aralkyl, optionally substituted aralkenyl, optionally substituted aralkynyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted cycloalkylalkenyl, optionally substituted cycloalkylalkynyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heterocyclylalkenyl, optionally substituted heterocyclylalkynyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, optionally substituted heteroarylalkenyl, optionally substituted heteroarylalkynyl, $-R^9-OR^{10}$, $-R^9-CN$, $-R^9-NO_2$, $-R^9-N(R^{10})_2$, $-R^9-C(O)OR^{10}$ and $-R^9-C(O)N(R^{10})_2$;
 optionally, R^6 and R^7 , together with the nitrogen to which they are attached, form an optionally substituted *N*-heteroaryl or an optionally substituted *N*-heterocyclyl;
 each R^8 present in a R^3 substituent is independently selected from the group consisting of a direct bond, an optionally substituted straight or branched alkylene chain, an optionally substituted straight or branched alkenylene chain and an optionally substituted straight or branched alkynylene chain;
 each R^9 is independently selected from the group consisting of an optionally substituted straight or branched alkylene chain, an optionally substituted straight or branched alkenylene chain and an optionally substituted straight or branched alkynylene chain; and
 each R^{10} present in a R^3 substituent, a R^6 substituent or a R^7 substituent is independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, haloalkyl, haloalkenyl, haloalkynyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted aralkenyl, optionally substituted aralkynyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted cycloalkylalkenyl, optionally substituted cycloalkylalkynyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heterocyclylalkenyl, optionally substituted heterocyclylalkynyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, optionally substituted heteroarylalkenyl, optionally substituted heteroarylalkynyl.

27. The compound of Claim 26 wherein:

A is $-C(O)-$;

R^1 is aryl substituted with at least one of $-R^8-OR^{10}$ or $-R^8-O-R^9-CN$, where each R^8 is a direct bond and R^{10} is selected from the group consisting of optionally substituted heterocyclylalkyl, optionally substituted heteroarylalkyl and optionally substituted aralkyl, and optionally substituted with one or more substituents selected from the group consisting of halo, haloalkyl, alkyl, optionally substituted heteroaryl, optionally substituted heterocyclyl, and alkoxy;

R^2 , R^4 and R^5 are each hydrogen;

R^3 is aryl substituted with one or more substituents selected from the group consisting of alkyl, halo,

haloalkyl, nitro, cycloalkyl, cycloalkylalkyl, optionally substituted aryl, optionally substituted heteroaryl, optionally substituted heterocyclyl, $-R^8-OR^{10}$, $-R^8-C(O)OR^{10}$, $-R^8-OC(O)R^{10}$, $-R^8-O-R^9-C(O)OR^{10}$, $-R^8-O-R^9-C(O)N(R^6)R^7$, $-S(O)_pR^6$ (where p is 0, 1 or 2), $-S(O)_tN(R^6)R^7$ (where t is 1 or 2), $-R^8-N(R^6)R^7$, $-R^8-N(R^6)C(O)R^{10}$, and $-R^8-CN$;

R^6 and R^7 are each independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, haloalkyl, haloalkenyl, haloalkynyl, hydroxyalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted aralkenyl, optionally substituted aralkynyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted cycloalkylalkenyl, optionally substituted cycloalkylalkynyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heterocyclylalkenyl, optionally substituted heterocyclylalkynyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, optionally substituted heteroarylalkenyl, optionally substituted heteroarylalkynyl, $-R^9-OR^{10}$, $-R^9-CN$, $-R^9-NO_2$, $-R^9-N(R^{10})_2$, $-R^9-C(O)OR^{10}$ and $-R^9-C(O)N(R^{10})_2$;

optionally, R^6 and R^7 , together with the nitrogen to which they are attached, form an optionally substituted *N*-heteroaryl or an optionally substituted *N*-heterocyclyl;

each R^8 present in a R^3 substituent is independently selected from the group consisting of a direct bond, an optionally substituted straight or branched alkylene chain, an optionally substituted straight or branched alkenylene chain and an optionally substituted straight or branched alkynylene chain;

each R^9 is independently selected from the group consisting of an optionally substituted straight or branched alkylene chain, an optionally substituted straight or branched alkenylene chain and an optionally substituted straight or branched alkynylene chain; and

each R^{10} present in a R^3 substituent, a R^6 substituent or a R^7 substituent is independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, haloalkyl, haloalkenyl, haloalkynyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted aralkenyl, optionally substituted aralkynyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted cycloalkylalkenyl, optionally substituted cycloalkylalkynyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heterocyclylalkenyl, optionally substituted heterocyclylalkynyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, optionally substituted heteroarylalkenyl, optionally substituted heteroarylalkynyl.

28. The compound of Claim 27 wherein:

A is $-C(O)-$;

R^1 is phenyl substituted with at least one of $-R^8-OR^{10}$ or $-R^8-O-R^9-CN$, where each R^8 is a direct bond and

R^{10} is selected from the group consisting of optionally substituted heterocyclalkyl, optionally substituted heteroarylalkyl and optionally substituted aralkyl, and optionally substituted with one or more substituents selected from the group consisting of halo, haloalkyl, alkyl, optionally substituted heteroaryl, optionally substituted heterocycl, and alkoxy;

R^2 , R^4 and R^5 are each hydrogen;

R^3 is phenyl substituted with one or more substituents selected from the group consisting of alkyl, halo, haloalkyl, nitro, cycloalkyl, cycloalkylalkyl, optionally substituted aryl, optionally substituted heteroaryl, optionally substituted heterocycl, $-R^8-OR^{10}$, $-R^8-C(O)OR^{10}$, $-R^8-OC(O)R^{10}$, $-R^8-O-R^9-C(O)OR^{10}$, $-R^8-O-R^9-C(O)N(R^6)R^7$, $-S(O)_pR^6$ (where p is 0, 1 or 2), $-S(O)_tN(R^6)R^7$ (where t is 1 or 2), $-R^8-N(R^6)R^7$, $-R^8-N(R^6)C(O)R^{10}$, and $-R^8-CN$;

R^6 and R^7 are each independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, haloalkyl, haloalkenyl, haloalkynyl, hydroxyalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted aralkenyl, optionally substituted aralkynyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted cycloalkylalkenyl, optionally substituted cycloalkylalkynyl, optionally substituted heterocycl, optionally substituted heterocyclalkyl, optionally substituted heterocyclalkenyl, optionally substituted heterocyclalkynyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, optionally substituted heteroarylalkenyl, optionally substituted heteroarylalkynyl, $-R^9-OR^{10}$, $-R^9-CN$, $-R^9-NO_2$, $-R^9-N(R^{10})_2$, $-R^9-C(O)OR^{10}$ and $-R^9-C(O)N(R^{10})_2$;

optionally, R^6 and R^7 , together with the nitrogen to which they are attached, form an optionally substituted *N*-heteroaryl or an optionally substituted *N*-heterocycl;

each R^8 present in a R^3 substituent is independently selected from the group consisting of a direct bond, an optionally substituted straight or branched alkylene chain, an optionally substituted straight or branched alkenylene chain and an optionally substituted straight or branched alkynylene chain;

each R^9 is independently selected from the group consisting of an optionally substituted straight or branched alkylene chain, an optionally substituted straight or branched alkenylene chain and an optionally substituted straight or branched alkynylene chain; and

each R^{10} present in a R^3 substituent, a R^6 substituent or a R^7 substituent is independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, haloalkyl, haloalkenyl, haloalkynyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted aralkenyl, optionally substituted aralkynyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted cycloalkylalkenyl, optionally substituted cycloalkylalkynyl, optionally substituted heterocycl, optionally substituted heterocyclalkyl, optionally substituted heterocyclalkenyl, optionally substituted heterocyclalkynyl, optionally

substituted heteroaryl, optionally substituted heteroarylalkyl, optionally substituted heteroarylalkenyl, optionally substituted heteroarylalkynyl.

29. The compound of Claim 28 wherein:

A is -C(O)-;

R^1 is phenyl substituted with at least one of $-R^8-OR^{10}$ or $-R^8-O-R^9-CN$, where each R^8 is a direct bond and R^{10} is selected from the group consisting of optionally substituted heterocyclalkyl, optionally substituted heteroarylalkyl and optionally substituted aralkyl, and optionally substituted with one or two substituents selected from the group consisting of halo, haloalkyl, alkyl, optionally substituted heteroaryl, optionally substituted heterocycl, and alkoxy;

R^2 , R^4 and R^5 are each hydrogen;

R^3 is phenyl substituted with one or more substituents selected from the group consisting of alkyl, halo, haloalkyl, nitro, cycloalkyl, cycloalkylalkyl, optionally substituted aryl, optionally substituted heteroaryl, optionally substituted heterocycl, $-R^8-OR^{10}$, $-R^8-C(O)OR^{10}$, $-R^8-OC(O)R^{10}$, $-R^8-O-R^9-C(O)OR^{10}$, $-R^8-O-R^9-C(O)N(R^6)R^7$, $-S(O)_pR^6$ (where p is 0, 1 or 2), $-S(O)_tN(R^6)R^7$ (where t is 1 or 2), $-R^8-N(R^6)R^7$, $-R^8-N(R^6)C(O)R^{10}$, and $-R^8-CN$;

R^6 and R^7 are each independently selected from the group consisting of hydrogen, alkyl, haloalkyl, hydroxyalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted heterocycl, optionally substituted heterocyclalkyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, $-R^9-OR^{10}$, $-R^9-CN$, $-R^9-NO_2$, $-R^9-N(R^{10})_2$, $-R^9-C(O)OR^{10}$ and $-R^9-C(O)N(R^{10})_2$;

each R^8 present in a R^3 substituent is independently selected from the group consisting of a direct bond, an optionally substituted straight or branched alkylene chain, and an optionally substituted straight or branched alkenylene chain;

each R^9 is independently selected from the group consisting of an optionally substituted straight or branched alkylene chain, or an optionally substituted straight or branched alkenylene chain; and

each R^{10} present in a R^3 substituent, a R^6 substituent or a R^7 substituent is independently selected from the group consisting of hydrogen, alkyl, haloalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted heterocycl, optionally substituted heterocyclalkyl, optionally substituted heteroaryl, and optionally substituted heteroarylalkyl.

30. The compound of Claim 29 wherein:

A is -C(O)-;

R^1 is phenyl substituted with at least one of $-R^8-OR^{10}$, where R^8 is a direct bond and R^{10} is selected from the group consisting of optionally substituted heterocyclalkyl, optionally substituted heteroarylalkyl and optionally substituted aralkyl, and optionally substituted with one or more substituents selected from the group consisting of halo, haloalkyl, alkyl, and alkoxy;

R^2 , R^4 and R^5 are each hydrogen;

R^3 is phenyl substituted with one or more substituents selected from the group consisting of alkyl, halo, haloalkyl, nitro, cycloalkyl, cycloalkylalkyl, optionally substituted aryl, optionally substituted heteroaryl, optionally substituted heterocyclalkyl, $-R^8-OR^{10}$, $-R^8-C(O)OR^{10}$, $-R^8-OC(O)R^{10}$, $-R^8-O-R^9-C(O)OR^{10}$, $-R^8-O-R^9-C(O)N(R^6)R^7$, $-S(O)_pR^6$ (where p is 0, 1 or 2), $-S(O)_tN(R^6)R^7$ (where t is 1 or 2), $-R^8-N(R^6)R^7$, $-R^8-N(R^6)C(O)R^{10}$, and $-R^8-CN$;

R^6 and R^7 are each independently selected from the group consisting of hydrogen, alkyl, haloalkyl, hydroxyalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted heterocyclalkyl, optionally substituted heterocyclalkyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, $-R^9-OR^{10}$, $-R^9-CN$, $-R^9-NO_2$, $-R^9-N(R^{10})_2$, $-R^9-C(O)OR^{10}$ and $-R^9-C(O)N(R^{10})_2$;

R^8 present in the R^3 substituent is independently selected from the group consisting of a direct bond, an optionally substituted straight or branched alkylene chain, and an optionally substituted straight or branched alkenylene chain;

each R^9 is independently selected from the group consisting of an optionally substituted straight or branched alkylene chain, or an optionally substituted straight or branched alkenylene chain; and

R^{10} present in a R^3 substituent and each R^{10} present in a R^6 substituent or a R^7 substituent is independently selected from the group consisting of hydrogen, alkyl, haloalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted heterocyclalkyl, optionally substituted heterocyclalkyl, optionally substituted heteroaryl, and optionally substituted heteroarylalkyl.

31. The compound of Claim 30 selected from the group consisting of:

3-amino-1-(4-(*iso*-propoxy)phenyl)carbonyl-5-[4-[2-(piperidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

3-amino-1-(4-(*iso*-propoxyphenyl)carbonyl-5-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

3-amino-1-(4-(*tert*-butyl)phenyl)carbonyl-5-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole; and

3-amino-1-(4-(morpholin-4-yl)phenyl)carbonyl-5-[3-fluoro-4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-

1H-1,2,4-triazole.

32. The compound of Claim 29 wherein:

A is -C(O)-;

R¹ is phenyl substituted with -R⁸-O-R⁹-CN where R⁸ is a direct bond ;

R², R⁴ and R⁵ are each hydrogen;

R³ is phenyl substituted with one or more substituents selected from the group consisting of alkyl, halo, haloalkyl, nitro, cycloalkyl, cycloalkylalkyl, -R⁸-OR¹⁰, -R⁸-C(O)OR¹⁰, -R⁸-OC(O)R¹⁰, -R⁸-O-R⁹-C(O)OR¹⁰, -R⁸-O-R⁹-C(O)N(R⁶)R⁷, -S(O)_pR⁶ (where p is 0, 1 or 2), -S(O)_tN(R⁶)R⁷ (where t is 1 or 2), -R⁸-N(R⁶)R⁷, -R⁸-N(R⁶)C(O)R¹⁰, and -R⁸-CN;

R⁶ and R⁷ are each independently selected from the group consisting of hydrogen, alkyl, haloalkyl, hydroxyalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, -R⁹-OR¹⁰, -R⁹-CN, -R⁹-NO₂, -R⁹-N(R¹⁰)₂, -R⁹-C(O)OR¹⁰ and -R⁹-C(O)N(R¹⁰)₂;

each R⁸ present in a R³ substituent is independently selected from the group consisting of a direct bond, an optionally substituted straight or branched alkylene chain, and an optionally substituted straight or branched alkenylene chain;

each R⁹ is independently selected from the group consisting of an optionally substituted straight or branched alkylene chain, or an optionally substituted straight or branched alkenylene chain; and

each R¹⁰ present in a R³ substituent, a R⁶ substituent or a R⁷ substituent is independently selected from the group consisting of hydrogen, alkyl, haloalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heteroaryl, and optionally substituted heteroarylalkyl.

33. The compound of Claim 26 wherein:

A is -C(O)-;

R¹ is aryl substituted with at least one of -R⁸-OR¹⁰ or -R⁸-O-R⁹-CN, where each R⁸ is a direct bond and R¹⁰ is selected from the group consisting of optionally substituted heterocyclylalkyl, optionally substituted heteroarylalkyl and optionally substituted aralkyl, and optionally substituted with one or more substituents selected from the group consisting of halo, haloalkyl, alkyl, optionally substituted heteroaryl, optionally substituted heterocyclyl, and alkoxy;

R², R⁴ and R⁵ are each hydrogen;

R^3 is heteroaryl optionally substituted with one or more substituents selected from the group consisting of alkyl, oxo, and $-R^8-OR^{10}$;

R^6 and R^7 are each independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, haloalkyl, haloalkenyl, haloalkynyl, hydroxyalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted aralkenyl, optionally substituted aralkynyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted cycloalkylalkenyl, optionally substituted cycloalkylalkynyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heterocyclylalkenyl, optionally substituted heterocyclylalkynyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, optionally substituted heteroarylalkenyl, optionally substituted heteroarylalkynyl, $-R^9-OR^{10}$, $-R^9-CN$, $-R^9-NO_2$, $-R^9-N(R^{10})_2$, $-R^9-C(O)OR^{10}$ and $-R^9-C(O)N(R^{10})_2$;

optionally, R^6 and R^7 , together with the nitrogen to which they are attached, form an optionally substituted *N*-heteroaryl or an optionally substituted *N*-heterocyclyl;

R^8 present in the R^3 substituent is independently selected from the group consisting of a direct bond, an optionally substituted straight or branched alkylene chain, an optionally substituted straight or branched alkenylene chain and an optionally substituted straight or branched alkynylene chain;

each R^9 is independently selected from the group consisting of an optionally substituted straight or branched alkylene chain, an optionally substituted straight or branched alkenylene chain and an optionally substituted straight or branched alkynylene chain; and

R^{10} present in the R^3 substituent and each R^{10} present in a R^6 substituent or a R^7 substituent is independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, haloalkyl, haloalkenyl, haloalkynyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted aralkenyl, optionally substituted aralkynyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted cycloalkylalkenyl, optionally substituted cycloalkylalkynyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heterocyclylalkenyl, optionally substituted heterocyclylalkynyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, optionally substituted heteroarylalkenyl, optionally substituted heteroarylalkynyl.

34. The compound of Claim 33 wherein:

A is $-C(O)-$;

R^1 is phenyl substituted with at least one of $-R^8-OR^{10}$ or $-R^8-O-R^9-CN$, where each R^8 is a direct bond and R^{10} is selected from the group consisting of optionally substituted heterocyclylalkyl, optionally substituted heteroarylalkyl and optionally substituted aralkyl, and optionally substituted with one

or more substituents selected from the group consisting of halo, haloalkyl, alkyl, optionally substituted heteroaryl, optionally substituted heterocyclyl, and alkoxy;

R^2 , R^4 and R^5 are each hydrogen;

R^3 is heteroaryl optionally substituted with one or more substituents selected from the group consisting of alkyl, oxo, and $-R^8-OR^{10}$;

R^6 and R^7 are each independently selected from the group consisting of hydrogen, alkyl, haloalkyl, hydroxyalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, $-R^9-OR^{10}$, $-R^9-CN$, $-R^9-NO_2$, $-R^9-N(R^{10})_2$, $-R^9-C(O)OR^{10}$ and $-R^9-C(O)N(R^{10})_2$;

R^8 present in the R^3 substituent is independently selected from the group consisting of a direct bond, an optionally substituted straight or branched alkylene chain or an optionally substituted straight or branched alkenylene chain;

each R^9 is independently selected from the group consisting of an optionally substituted straight or branched alkylene chain or an optionally substituted straight or branched alkenylene chain; and

R^{10} present in the R^3 substituent and each R^{10} present in a R^6 substituent or a R^7 substituent is independently selected from the group consisting of hydrogen, alkyl, haloalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heteroaryl, or optionally substituted heteroarylalkyl.

35. The compound of Claim 34 selected from the group consisting of:

3-amino-1-(1H-indol-5-yl)carbonyl-5-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
3-amino-1-(benzo[b]thiophen-2-yl)carbonyl-5-[4-[2-(pyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

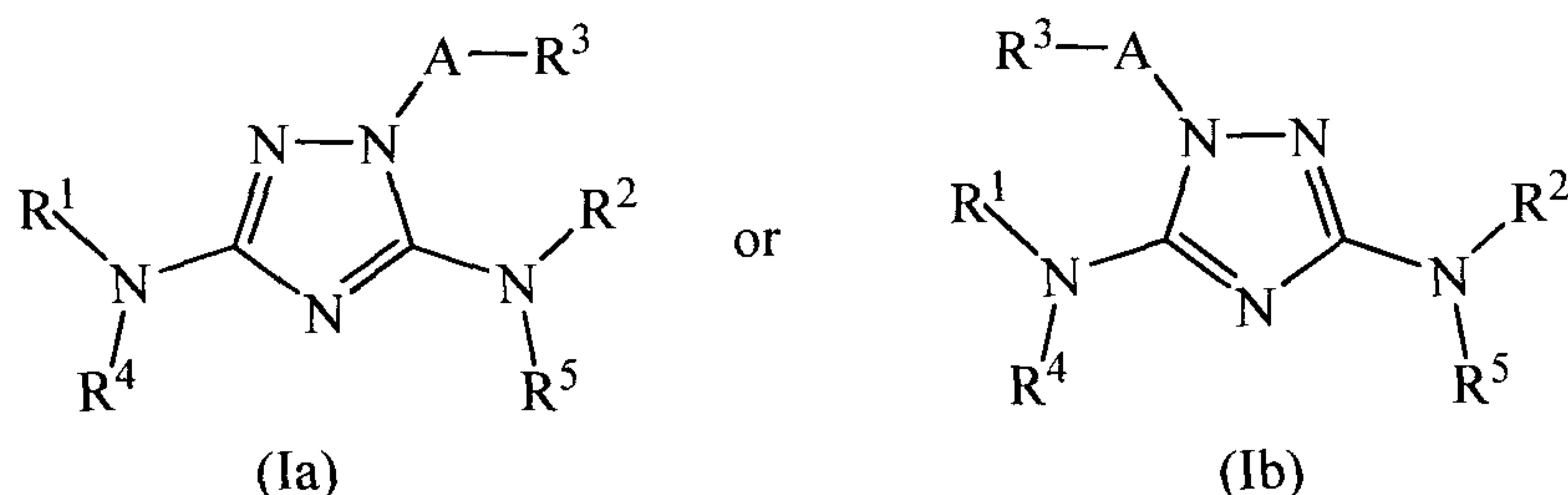
3-amino-1-(1H-indol-6-yl)carbonyl-5-[4-[2-(imidazol-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;
3-amino-1-(benzo[b]thiophen-5-yl)carbonyl-5-[4-[2-(imidazol-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole;

3-amino-1-(1,4-benzodioxan-6-yl)carbonyl-5-[4-[2-((*S*)-3-fluoropyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole; and

3-amino-1-(1H-indol-6-yl)carbonyl-5-[4-[2-((*S*)-3-fluoropyrrolidin-1-yl)ethoxy]phenylamino]-1H-1,2,4-triazole.

36. A pharmaceutical composition comprising a pharmaceutically acceptable excipient and a

compound of formula (Ia) or formula (Ib):



wherein, independently at each occurrence:

A is -C(O)- or -C(S)-;

R¹ is aryl substituted with at least one of -R⁸-OR¹⁰ or -R⁸-O-R⁹-CN, where each R⁸ is a direct bond and R¹⁰ is selected from the group consisting of optionally substituted heterocyclalkyl, optionally substituted heteroarylalkyl and optionally substituted aralkyl, and optionally substituted with one or more substituents selected from the group consisting of halo, haloalkyl, alkyl, optionally substituted heteroaryl, optionally substituted heterocycl, and alkoxy;

R², R⁴ and R⁵ are each independently hydrogen, alkyl, aryl, aralkyl, -C(O)R¹⁰ or -C(O)N(R⁶)R⁷;

R³ is one of the following:

- a) aryl substituted with one or more substituents selected from the group consisting of alkyl, halo, haloalkyl, nitro, cycloalkyl, cycloalkylalkyl, optionally substituted aryl, optionally substituted heteroaryl, optionally substituted heterocycl, -R⁸-OR¹⁰, -R⁸-C(O)OR¹⁰, -R⁸-OC(O)R¹⁰, -R⁸-O-R⁹-C(O)OR¹⁰, -R⁸-O-R⁹-C(O)N(R⁶)R⁷, -S(O)_pR⁶ (where p is 0, 1 or 2), -S(O)_tN(R⁶)R⁷ (where t is 1 or 2), -R⁸-N(R⁶)R⁷, -R⁸-N(R⁶)C(O)R¹⁰, -R⁸-N(R⁶)C(O)OR¹⁰ and -R⁸-CN; or
- b) optionally substituted heteroaryl;

R⁶ and R⁷ are each independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, haloalkyl, haloalkenyl, haloalkynyl, hydroxyalkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted aralkenyl, optionally substituted aralkynyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted cycloalkylalkenyl, optionally substituted cycloalkylalkynyl, optionally substituted heterocycl, optionally substituted heterocyclalkyl, optionally substituted heterocyclalkenyl, optionally substituted heterocyclalkynyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, optionally substituted heteroarylalkenyl, optionally substituted heteroarylalkynyl, -R⁹-OR¹⁰, -R⁹-CN, -R⁹-NO₂, -R⁹-N(R¹⁰)₂, -R⁹-C(O)OR¹⁰ and -R⁹-C(O)N(R¹⁰)₂;

optionally, R⁶ and R⁷, together with the nitrogen to which they are attached, form an optionally substituted *N*-heteroaryl or an optionally substituted *N*-heterocycl;

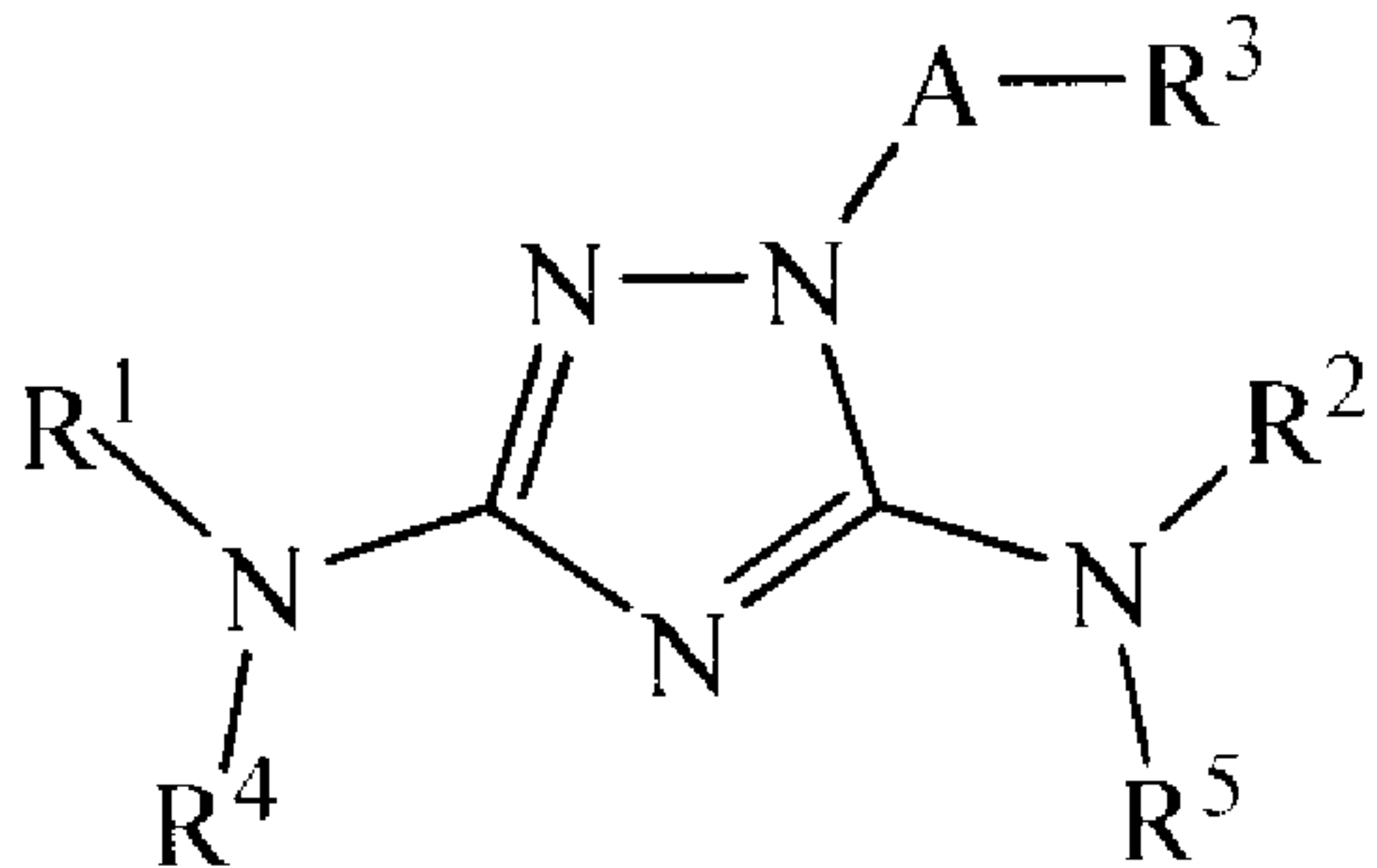
each R^8 present in a R^3 substituent is independently selected from the group consisting of a direct bond, an optionally substituted straight or branched alkylene chain, an optionally substituted straight or branched alkenylene chain and an optionally substituted straight or branched alkynylene chain;

each R^9 is independently selected from the group consisting of an optionally substituted straight or branched alkylene chain, an optionally substituted straight or branched alkenylene chain and an optionally substituted straight or branched alkynylene chain; and

R^{10} present in the R^2 , R^4 and R^5 substituents and each R^{10} present in a R^3 substituent, a R^6 substituent or a R^7 substituent is independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, haloalkyl, haloalkenyl, haloalkynyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted aralkenyl, optionally substituted aralkynyl, optionally substituted cycloalkyl, optionally substituted cycloalkylalkyl, optionally substituted cycloalkylalkenyl, optionally substituted cycloalkylalkynyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted heterocyclylalkenyl, optionally substituted heterocyclylalkynyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, optionally substituted heteroarylalkenyl, optionally substituted heteroarylalkynyl;

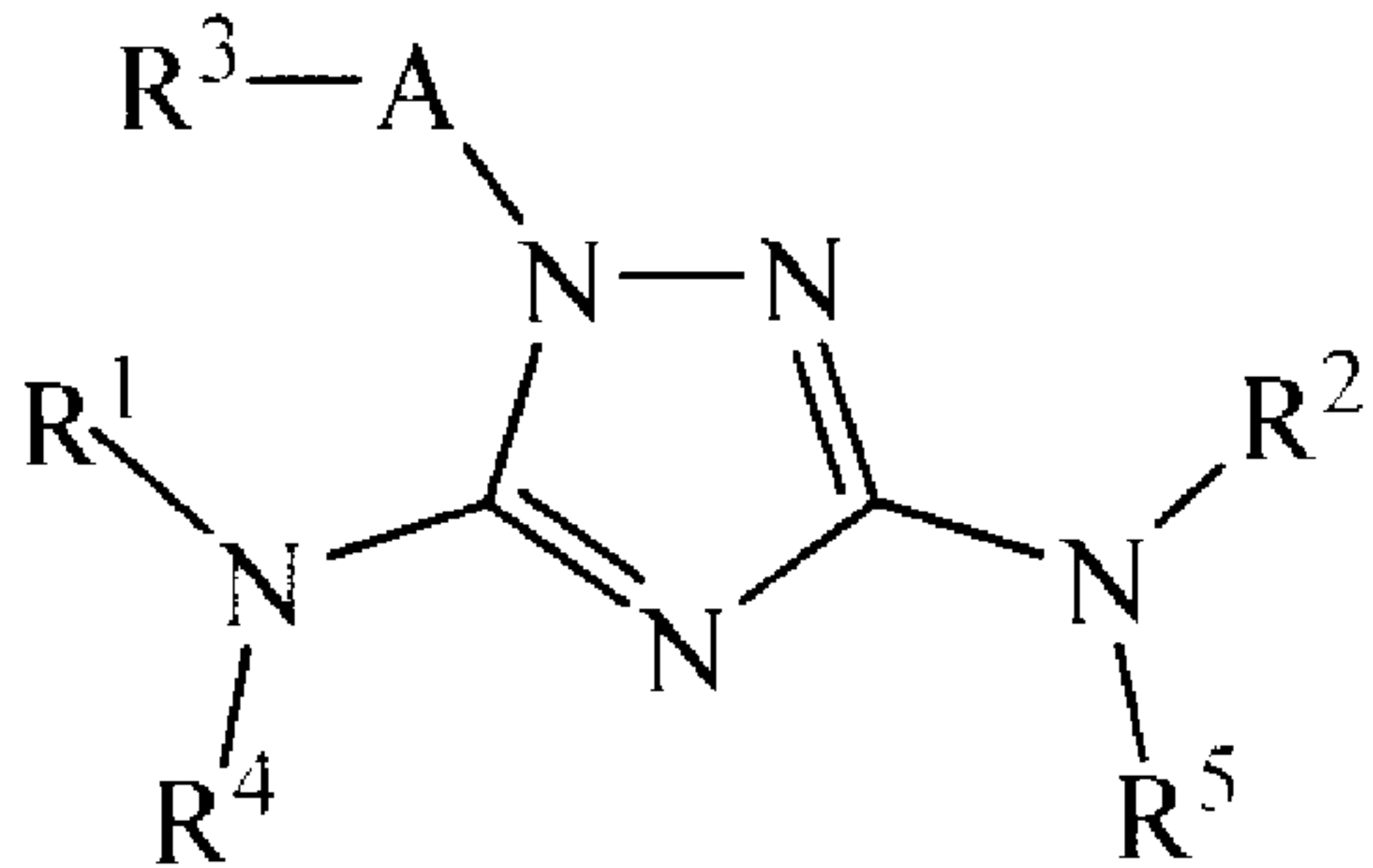
as an isolated stereoisomer or tautomer thereof or mixtures thereof,

or a pharmaceutically acceptable salt or N-oxide thereof.



(Ia)

or



(Ib)