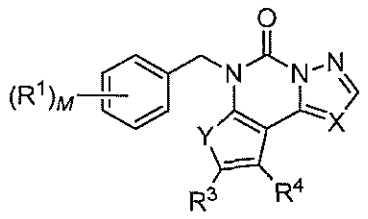
CLAIMS

What is claimed is:

1. A chemical entity of Formula I:



(I)

wherein:

X is -CH- or -N-;

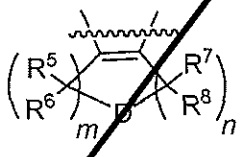
Y is -O- or -S-;

M is 0-5;

R^1 is each independently selected from the group consisting of: H, halo, -CN, -C_{1-6}alkyl, -C_{1-6}haloalkyl, -C_{1-6}thioalkyl, -C_{1-6}alkoxy, -C_{1-6}haloalkoxy, -SO_2C_{1-6}alkyl, aryl, heteroaryl, and heterocycloalkyl;

R^3 and R^4 are each independently selected from the group consisting of -H, halo, -C_{1-6}alkyl, -C_{1-6}haloalkyl, -CH_2OH, -C_{1-6}alkoxy, -C_{1-6}haloalkoxy, aryl, optionally substituted 5 or 6 membered heteroaryl, -(C_1-C_6alkyl)aryl, -(C_1-C_6 alkyl)heteroaryl, and -$(CR^{10}R^{11})_{1-3}NR^{12}R^{13}$;

or R^3 and R^4 taken together with the carbons to which they are attached form a saturated or unsaturated monocyclic ring system, having the following structure:



D is -O-, -N(R^9)-, or a bond;

m and *n* are each independently 0-4, with the proviso that the sum of *m* and *n* is 1-5 when D is -O-, -N(R^9)-, or is 2-6 when D is a bond; and with the proviso that when D is a bond, R^1 is not -Cl in the *para* position;

R^5, R^6, R^7, R^8, are each independently selected from the group consisting of: -H, -F, -C_{1-6}alkyl, -C_{1-6}haloalkyl, -OH, -C_{1-6}alkoxy, -C_{1-6}haloalkoxy;

R^9 is selected from the group consisting of: -H, -C_{1-6}alkyl, -C_{1-6}thioalkyl, -C_{1-6}haloalkyl, -CO_2C_{1-6}alkyl, -SO_2(C_{1-6}alkyl), -C_{1-6}alkyl(aryl), -C_{1-6}alkyl(C_{3-6}cycloalkyl), -C_{1-6}alkyl(heterocycloalkyl), -C_{1-6}alkyl(heteroaryl), heteroaryl, -CO(aryl), -CO(heteroaryl), -CO(heterocycloalkyl), -CO(C_{3-6}cycloalkyl), wherein each aryl, cycloalkyl, heterocycloalkyl, heteroaryl are optionally unsubstituted or substituted with a member each independently selected from the group consisting of -H, -Cl, -F, and -CH_3;

R^{10} and R^{11} are each independently selected from the group consisting of: -H, -F, -C_{1-6}alkyl, -CF_3 and -OH;

R^{12} and R^{13} are each independently selected from the group consisting of: -H, -C_{1-6} alkyl, -C_{3-6}cycloalkyl, -C_{1-6}alkyl(aryl), -C_{1-6}alkyl(heteroaryl), -C_{1-6}alkyl(heterocycloalkyl), -$CH_2CON(C_{1-6}alkyl)_2$;

or R^{12} and R^{13} are taken together with the nitrogen to which they are attached form a heterocycloalkyl ring, optionally substituted with one or more R^{14}, where each R^{14} is independently selected from the group consisting of: -H, -C_{1-6}alkyl, -CH_2OH, -OH, -$COCH_3$, -SO_2CH_3, -O-pyridyl, 2-fluorophenyl, 3-fluorophenyl, 4-fluorophenyl, -O-phenyl, -O-(2-fluorophenyl), -morpholino, 1,1-difluoro-cyclopropyl, or two R^{14} members are taken together to form a -C_{3-6}heterocycloalkyl;

wherein the chemical entity is selected from the group consisting of compounds of Formula (I), pharmaceutically acceptable salts of compounds of Formula (I), pharmaceutically acceptable prodrugs of compounds of Formula (I); and pharmaceutically active metabolites of compounds of Formula (I).

2. A chemical entity as in claim 1, wherein X is -N-.

3. A chemical entity as in claim 1, wherein X is -CH-.

4. A chemical entity as in claim 1, wherein Y is -S-.

5. A chemical entity as in claim 1, wherein Y is -O-.

6. A chemical entity as in claim 1, wherein *M* is 1.

7. A chemical entity as in claim 1, wherein *M* is 2.

8. A chemical entity as in claim 1, wherein *M* is 3.

9. A chemical entity as in claim 1, wherein *M* is 1, 2 or 3 and R^1 is each independently halo or -C_{1-6}alkoxy.

10. A chemical entity as in claim 4, wherein R^1 is -OCH_3.

11. A chemical entity as in claim 4, wherein R^1 is -F, -Cl, -Br, -CF_3, -CN or -CHF_2.

12. A chemical entity as in claim 1, wherein R^3 is H, -Br, -C_{1-6}alkyl, benzyl, 1-methyl-3-(trifluoromethyl)-1H-pyrazol-5-yl and R^4 is H or -CH_3.

13. A chemical entity as in claim 1, wherein R^3 is -$(CR^{10}R^{11})_{1-3}NR^{12}R^{13}$ and R^4 is H or -CH_3.

14. A chemical entity as in claim 1, wherein R^3 is H, -Br, -C_{1-5}alkyl, benzyl, 1-methyl-3-(trifluoromethyl)-1H-pyrazol-5-yl, or -$(CR^{10}R^{11})NR^{12}R^{13}$, where R^{10} and R^{11} are each H, R^{12} is H or -C_{1-6}alkyl, R^{13} is -CH_3, -$CH_2CON(CH_3)_2$, cyclopropyl, benzyl, 3-pyridyl, oxan-4-ylmethyl, 2,2-dimethyloxan-4-yl, (3-methyloxetan-3-yl)methyl, (tetrahydrofuran-2-yl)methyl or (tetrahydrofuran-3-yl)methyl and R^4 is H or -CH_3.

15. A chemical entity as in claim 1, wherein R^3 is -$(CR^{10}R^{11})NR^{12}R^{13}$, where R^{10} and R^{11} are each H, R^{12} is H, -C_{1-6}alkyl, R^{13} is -CH_3, -$CH_2CON(CH_3)_2$, cyclopropyl, benzyl, 3-pyridyl, (tetrahydrofuran-2-yl)methyl, (tetrahydrofuran-3-yl)methyl, oxan-4-ylmethyl, 2,2-dimethyloxan-4-yl or (3-methyloxetan-3-yl)methyl and R^4 is H or -CH_3.

16. A chemical entity as in claim 1, wherein R^3 is H or -CH_3 and R^4 is -$(CR^{10}R^{11})_{1-3}NR^{12}R^{13}$.

17. A chemical entity as in claim 1, wherein R^3 is H or -CH_3, R^4 is -$(CR^{10}R^{11})NR^{12}R^{13}$, where R^{10} and R^{11} are each H, R^{12} is H or -C_{1-6}alkyl, and R^{13} is -C_{1-6}alkyl or oxan-4-ylmethyl.

18. A chemical entity as in claim 1, wherein R^3 or R^4 is -$(CR^{10}R^{11})_{1-3}NR^{12}R^{13}$, R^{10} and R^{11} are each independently H, -CH_3, or -OH, and R^{12} and R^{13} are taken together with the nitrogen to which they are attached to form a heterocycloalkyl ring selected from (2R,6S)-2,6-dimethylmorpholine, (2S,6R)-2,6-dimethylmorpholine, (3R,5S)-3,5-dimethylpiperazine, 1,1-difluoro-5-azaspiro[2.4]heptane, 1,4-oxazepane, 2-(methoxymethyl)pyrrolidine, 2,2-

dimethylmorpholine, 2,6-dimethylmorpholine, 2-ethylmorpholine, 2-methylmorpholine, 2-oxa-5-azabicyclo[2.2.1]heptane, 3-(2-fluorophenoxy)azetidine, 3,3,4-trimethylpiperazine, 3,4-dimethylpiperazine, 3-hydroxyazetidine, 3-methylmorpholine, 3-oxopiperazine, 4-(2-fluorophenyl)piperazine, 4-(3-fluorophenyl)piperazine, 4-(4-fluorophenyl)piperazine, 4-(methylsulfonyl)piperazine, 4-(morpholin-4-yl)piperidine, 4-(pyridin-4-yloxy)piperidine, 4-acetyl-1,4-diazepane, 4-acetylpiperazine, 4-ethyl-3-oxopiperazine, 4-hydroxypiperidine, 4-isopropylpiperazine, 4-methyl-piperazine, 4-thiomorpholine-1,1-dione, 8-oxa-3-azabicyclo[3.2.1]octane, isoindoline, morpholine, octahydropyrrolo[1,2-a]pyrazine, piperazine, and pyrrolidine.

19. A chemical entity as in claim 1, wherein R^3 is ((2R,6S)-2,6-dimethylmorpholin-4-yl)methyl, ((2S,6R)-2,6-dimethylmorpholin-4-yl)methyl, (1,4-oxazepan-4-yl)methyl, (1,4-oxazepan-4-ylmethyl), (2,2-dimethylmorpholino)methyl, (3-hydroxyazetidin-1-yl)methyl, (4-(methylsulfonyl)piperazin-1-yl)methyl, (4-acetyl-1,4-diazepan-1-yl)methyl, (4-acetylpiperazin-1-yl)methyl, (4-ethyl-3-oxopiperazin-1-yl)methyl, (4-methylpiperazin-1-yl)methyl, [3-(2-fluorophenoxy)azetidin-1-yl]methyl, [4-(2-fluorophenyl)piperazin-1-yl]methyl, [4-(3-fluorophenyl)piperazin-1-yl]methyl, [4-(4-fluorophenyl)piperazin-1-yl]methyl, [4-(morpholin-4-yl)piperidin-1-yl]methyl, [4-(pyridin-4-yloxy)piperidin-1-yl]methyl, {1,1-difluoro-5-azaspiro[2.4]heptan-5-yl}methyl, 2-oxa-7-azaspiro[3.5]nonan-7-ylmethyl, 4-thiomorpholine-1,1-dione, 7-oxa-2-azaspiro[3.5]nonan-2-ylmethyl, or morpholinomethyl, and R^4 is H or $-CH_3$.

20. A chemical entity as in claim 1, wherein R^3 is morpholinomethyl, (2,2-dimethylmorpholino)methyl, 2,6-dimethylmorpholino)methyl, ((2S,6R)-2,6-dimethylmorpholino)methyl, ((2R,6S)-2,6-dimethylmorpholin-4-yl)methyl, (4-(methylsulfonyl)piperazin-1-yl)methyl, 1-hydroxy-2-morpholinoethyl or 2-((2S,6R)-2,6-dimethylmorpholino)-1-hydroxyethyl, and R^4 is H or $-CH_3$.

21. A chemical entity as in claim 1, wherein R^4 is ((2S,6R)-2,6-dimethylmorpholino)methyl, ((2R,6S)-2,6-dimethylmorpholin-4-yl)methyl, [(3-phenoxypyrrolidin-1-yl)methyl], [3-(hydroxymethyl)-3-(2-methylpropyl)piperidin-1-yl]methyl, [ethyl(oxan-4-ylmethyl)amino]methyl, [methyl(oxan-4-ylmethyl)amino]methyl, [(oxan-4-ylmethyl)amino]methyl, or [bis(propan-2-yl)amino]methyl.

22. A chemical entity as in claim 1, wherein R^3 and R^4 taken together with the carbons to which they are attached form a six member monocyclic ring system, wherein D is -O-, and *m* is 1 and *n* is 2.

23. A chemical entity as in claim 1, wherein R^3 and R^4 taken together with the carbons to which they are attached form a six member monocyclic ring system, wherein D is -N(R^9)-, and *m* is 0, 1, or 2 and *n* is 1, 2 or 3; with the proviso that the sum of *m* and *n* is 1-5.

24. A chemical entity as in claim 1, wherein R^3 and R^4 taken together with the carbons to which they are attached form a six member monocyclic ring system, wherein D is a bond and *m* and *n* are 2.

25. A chemical entity as in claim 1, wherein R^5, R^6, R^7, R^8, are each independently -H, -F, or -CH_3.

26. A chemical entity as in claim 1, wherein R^3 and R^4 taken together with the carbons to which they are attached form a six member monocyclic ring system, wherein D is -N(R^9)-, and R^9 is H, -$C_{1\text{-}6}$alkyl, -$C_{1\text{-}6}$haloalkyl, -SO_2CH_3, benzyl, benzoyl, (3-chlorobenzyl), (4-chlorobenzyl), (3-chlorobenzoyl), (4-chlorobenzoyl), (2-fluorobenzyl), (4-fluorobenzyl), (pyridin-2-yl), (pyridin-2-ylmethyl), (pyridin-4-ylmethyl), (pyrimidin-2-ylmethyl), (pyrimidin-4-ylmethyl), (pyrazine-2-carbonyl), cyclopropylmethyl, (cyclopropanecarbonyl), (2,2-difluorocyclopropanecarbonyl), (tetrahydro-2H-pyran-4-yl)methyl, (oxetan-3-yl), (3-methyloxetan-3-yl)methyl, (tetrahydrofuran-3-yl)methyl, (tetrahydrofuran-3-carbonyl), (tetrahydro-2H-pyran-2-yl)methyl, (tetrahydro-2H-pyran-4-yl)methyl, (tetrahydro-2H-pyran-3-yl)methyl, (1-methyl-1H-imidazol-2-yl)methyl, (4-methylthiazol-5-yl)methyl, (5-methyl-1,3,4-thiadiazol-2-yl)methyl, (1,1-dioxidothietan-3-yl), (1,4-dioxan-2-yl)methyl), (5-oxotetrahydrofuran-2-yl)methyl, (1-methylpyrrolidine-3-carbonyl), (pyrrolidine-3-carbonyl), or (morpholin-2-ylmethyl).

27. A chemical entity as in claim 1, wherein R^3 and R^4 taken together with the carbons to which they are attached form a six member monocyclic ring system, wherein each R^5, R^6, R^7, R^8, are independently –H and -F; D is -N(R^9)-, and R^9 is (tetrahydrofuran-3-yl)methyl or (tetrahydro-2H-pyran-4-yl)methyl.

28. A chemical entity selected from the group consisting of:

6-(2-Chlorobenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(3-Chlorobenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Chlorobenzyl)-9-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-([1,1'-Biphenyl]-4-ylmethyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Chlorobenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-Benzyl-9-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-([1,1'-Biphenyl]-4-ylmethyl)-9-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-Benzyl-6-(2-chlorobenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-Benzyl-6-(3-chlorobenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(2-Chlorobenzyl)-9-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(3-Chlorobenzyl)-9-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-Benzyl-8-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(2-Chlorobenzyl)-8-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-([1,1'-Biphenyl]-4-ylmethyl)-8-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Chlorobenzyl)-8-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(3-Chlorobenzyl)-8-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6,8-Dibenzylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-([1,1'-Biphenyl]-4-ylmethyl)-8-benzylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(2-Chlorobenzyl)-8-isopentylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(3-Chlorobenzyl)-8-isopentylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-([1,1'-Biphenyl]-4-ylmethyl)-8-isopentylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-

5(6H)-one;

8-Benzyl-6-(4-chlorobenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Chlorobenzyl)-8-isopentylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-Benzylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-Benzyl-8-isopentylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Chlorobenzyl)-8,9-dimethylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((1,4-Oxazepan-4-yl)methyl)-6-(4-methoxybenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((Dimethylamino)methyl)-6-(4-methoxybenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-8-(morpholinomethyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-8-((4-methylpiperazin-1-yl)methyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-(((2S,6R)-2,6-Dimethylmorpholino)methyl)-6-(4-methoxybenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((4-Ethyl-3-oxopiperazin-1-yl)methyl)-6-(4-methoxybenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-8-((4-(methylsulfonyl)piperazin-1-yl)methyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((2,2-dimethylmorpholino)methyl)-6-(4-Methoxybenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-(2-oxa-5-azabicyclo[2.2.1]heptan-5-ylmethyl)-6-(4-Methoxybenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-(7-oxa-2-azaspiro[3.5]nonan-2-ylmethyl)-6-(4-Methoxybenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-(2-Oxa-7-azaspiro[3.5]nonan-7-ylmethyl)-6-(4-methoxybenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

7-((6-(4-Methoxybenzyl)-5-oxo-5,6-dihydrothieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-8-yl)methyl)tetrahydro-1H-oxazolo[3,4-a]pyrazin-3(5H)-one;

6-(4-Methoxybenzyl)-8-(1-methyl-3-(trifluoromethyl)-1H-pyrazol-5-yl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-(3,5-Dimethylisoxazol-4-yl)-6-(4-methoxybenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-methyl-8-(pyrrolidin-1-ylmethyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-methyl-8-(morpholinomethyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((Dimethylamino)methyl)-6-(4-methoxybenzyl)-9-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((Cyclopropyl(methyl)amino)methyl)-6-(4-methoxybenzyl)-9-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((4-Hydroxypiperidin-1-yl)methyl)-6-(4-methoxybenzyl)-9-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((Benzyl(2-hydroxyethyl)amino)methyl)-6-(4-methoxybenzyl)-9-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-methyl-8-(piperazin-1-ylmethyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-methyl-8-((((3-methyloxetan-3-yl)methyl)amino)methyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((4-Acetylpiperazin-1-yl)methyl)-6-(4-methoxybenzyl)-9-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-methyl-8-(((pyridin-3-ylmethyl)amino)methyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-methyl-8-((3-oxopiperazin-1-yl)methyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-methyl-8-((methyl((tetrahydrofuran-2-yl)methyl)amino)methyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-(((2S,6R)-2,6-Dimethylmorpholino)methyl)-6-(4-methoxybenzyl)-9-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-(Isoindolin-2-ylmethyl)-6-(4-methoxybenzyl)-9-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((Cyclopropylamino)methyl)-6-(4-methoxybenzyl)-9-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

(S)-6-(4-Methoxybenzyl)-8-((2-(methoxymethyl)pyrrolidin-1-yl)methyl)-9-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-methyl-8-((methyl((tetrahydrofuran-3-yl)methyl)amino)methyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

2-(((6-(4-Methoxybenzyl)-9-methyl-5-oxo-5,6-dihydrothieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-8-yl)methyl)(methyl)amino)-N,N-dimethylacetamide;

8-((1,4-Oxazepan-4-yl)methyl)-6-(4-methoxybenzyl)-9-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-methyl-8-((4-methylpiperazin-1-yl)methyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-methyl-8-((4-(methylsulfonyl)piperazin-1-yl)methyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((4-Isopropylpiperazin-1-yl)methyl)-6-(4-methoxybenzyl)-9-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-(2-Oxa-5-azabicyclo[2.2.1]heptan-5-ylmethyl)-6-(4-methoxybenzyl)-9-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((4-Ethyl-3-oxopiperazin-1-yl)methyl)-6-(4-methoxybenzyl)-9-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-(8-Oxa-3-azabicyclo[3.2.1]octan-3-ylmethyl)-6-(4-methoxybenzyl)-9-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((2-Ethylmorpholino)methyl)-6-(4-methoxybenzyl)-9-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((2,2-Dimethylmorpholino)methyl)-6-(4-methoxybenzyl)-9-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-methyl-8-((2-methylmorpholino)methyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-methyl-8-((3-methylmorpholino)methyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-(((3R,5S)-3,5-Dimethylpiperazin-1-yl)methyl)-6-(4-methoxybenzyl)-9-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((3,4-Dimethylpiperazin-1-yl)methyl)-6-(4-methoxybenzyl)-9-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-methyl-8-((3,3,4-trimethylpiperazin-1-yl)methyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

(S)-8-((Hexahydropyrrolo[1,2-a]pyrazin-2(1H)-yl)methyl)-6-(4-methoxybenzyl)-9-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-Bromo-6-(4-methoxybenzyl)-9-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-(Hydroxymethyl)-6-(4-methoxybenzyl)-9-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

9-(((2S,6R)-2,6-Dimethylmorpholino)methyl)-6-(4-methoxybenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Chlorobenzyl)-8,9-dimethylfuro[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

tert-Butyl 6-(4-methoxybenzyl)-5-oxo-5,6,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidine-9(8H)-carboxylate;

6-(2-Chlorobenzyl)-8,9,10,11-tetrahydrobenzo[4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

4-(4-Methoxybenzyl)-2-(morpholinomethyl)pyrazolo[1,5-c]thieno[3,2-e]pyrimidin-5(4H)-one;

6-(4-Chlorobenzyl)-10,10-dimethyl-6,8,10,11-tetrahydro-5H-pyrano[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5-one;

6-Benzyl-8,9,10,11-tetrahydrobenzo[4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(3-Chlorobenzyl)-8,9,10,11-tetrahydrobenzo[4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-([1,1'-Biphenyl]-4-ylmethyl)-8,9,10,11-tetrahydrobenzo[4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Chlorobenzyl)-6,8,10,11-tetrahydro-5H-pyrano[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5-one;

6-(4-Methylbenzyl)-6,8,10,11-tetrahydro-5H-pyrano[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5-one;

6-(4-(Trifluoromethyl)benzyl)-6,8,10,11-tetrahydro-5H-pyrano[4',3':4,5]thieno[3,2-

e][1,2,4]triazolo[1,5-c]pyrimidin-5-one;

6-(4-Methoxybenzyl)-6,8,10,11-tetrahydro-5H-pyrano[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5-one;

6-(3,4-Dichlorobenzyl)-6,8,10,11-tetrahydro-5H-pyrano[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5-one;

6-(4-Fluorobenzyl)-6,8,10,11-tetrahydro-5H-pyrano[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5-one;

6-(4-Chloro-3-fluorobenzyl)-6,8,10,11-tetrahydro-5H-pyrano[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5-one;

6-(4-Chloro-2-fluorobenzyl)-6,8,10,11-tetrahydro-5H-pyrano[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5-one;

6-(3-Fluoro-4-methoxybenzyl)-6,8,10,11-tetrahydro-5H-pyrano[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5-one;

6-(4-(Trifluoromethoxy)benzyl)-6,8,10,11-tetrahydro-5H-pyrano[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5-one;

6-(4-Ethoxybenzyl)-6,8,10,11-tetrahydro-5H-pyrano[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5-one;

6-(3,5-Difluoro-4-methoxybenzyl)-6,8,10,11-tetrahydro-5H-pyrano[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5-one;

6-(4-Chlorobenzyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(3,4-Dimethoxybenzyl)-8,9,10,11-tetrahydropyrido[3',2':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Chlorobenzyl)-9-methyl-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

9-Benzyl-6-(4-chlorobenzyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-

e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Chlorobenzyl)-9-(cyclopropylmethyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

2-(((2S,6R)-2,6-Dimethylmorpholino)methyl)-4-(4-methoxybenzyl)pyrazolo[1,5-c]thieno[3,2-e]pyrimidin-5(4H)-one;

6-(4-Chlorobenzyl)-9-((tetrahydro-2H-pyran-4-yl)methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Chlorobenzyl)-9-(oxetan-3-yl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Chlorobenzyl)-9-(2,2,2-trifluoroethyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-((5-methyl-1,3,4-thiadiazol-2-yl)methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-((tetrahydro-2H-pyran-4-yl)methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

9-(Cyclopropylmethyl)-6-(4-methoxybenzyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-((3-methyloxetan-3-yl)methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-(3-(methylthio)propyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-((tetrahydrofuran-3-yl)methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

9-((2,2-Difluorobenzo[d][1,3]dioxol-5-yl)methyl)-6-(4-methoxybenzyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-neopentyl-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-

e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-(pyrimidin-2-ylmethyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-((tetrahydro-2H-pyran-2-yl)methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-(3-(methylsulfonyl)propyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-(pyrimidin-4-ylmethyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-(pyridin-2-ylmethyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-(pyridin-4-ylmethyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-((1-methyl-1H-imidazol-2-yl)methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-((4-methylthiazol-5-yl)methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

9-(1,1-Dioxidothietan-3-yl)-6-(4-methoxybenzyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

9-((1,4-Dioxan-2-yl)methyl)-6-(4-methoxybenzyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-((5-oxotetrahydrofuran-2-yl)methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

9-(4-Fluorobenzyl)-6-(4-methoxybenzyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

9-(2-Fluorobenzyl)-6-(4-methoxybenzyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-

e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Chloro-2-fluorobenzyl)-9-((tetrahydro-2H-pyran-4-yl)methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Chloro-2-fluorobenzyl)-9-(pyridin-2-ylmethyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Chloro-2-fluorobenzyl)-9-((1-methyl-1H-imidazol-2-yl)methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Chloro-2-fluorobenzyl)-9-(pyrimidin-2-ylmethyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Chloro-2-fluorobenzyl)-9-((tetrahydrofuran-3-yl)methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-((tetrahydro-2H-pyran-3-yl)methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

11,11-Difluoro-6-(4-methoxybenzyl)-9-((tetrahydro-2H-pyran-4-yl)methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

11,11-Difluoro-6-(4-methoxybenzyl)-9-((tetrahydro-2H-pyran-3-yl)methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(2-Fluoro-4-methoxybenzyl)-9-(pyrimidin-2-ylmethyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(2-Fluoro-4-methoxybenzyl)-9-((1-methyl-1H-imidazol-2-yl)methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(2-Fluoro-4-methoxybenzyl)-9-(pyridin-2-ylmethyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(2-Fluoro-4-methoxybenzyl)-9-((tetrahydrofuran-3-yl)methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(2-Fluoro-4-methoxybenzyl)-9-((tetrahydro-2H-pyran-4-yl)methyl)-8,9,10,11-

tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(2-Fluoro-4-methoxybenzyl)-9-((tetrahydro-2H-pyran-3-yl)methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-((tetrahydrofuran-3-yl)methyl)-6,8,9,10,11,12-hexahydro-5H-[1,2,4]triazolo[1",5":1',6']pyrimido[5',4':4,5]thieno[2,3-c]azepin-5-one;

6-(4-Methoxybenzyl)-9-((1-methyl-1H-imidazol-2-yl)methyl)-6,8,9,10,11,12-hexahydro-5H-[1,2,4]triazolo[1",5":1',6']pyrimido[5',4':4,5]thieno[2,3-c]azepin-5-one;

6-(4-Methoxybenzyl)-9-(pyrimidin-2-ylmethyl)-6,8,9,10,11,12-hexahydro-5H-[1,2,4]triazolo[1",5":1',6']pyrimido[5',4':4,5]thieno[2,3-c]azepin-5-one;

6-(4-Methoxybenzyl)-9-(pyridin-2-ylmethyl)-6,8,9,10,11,12-hexahydro-5H-[1,2,4]triazolo[1",5":1',6']pyrimido[5',4':4,5]thieno[2,3-c]azepin-5-one;

6-(4-Methoxybenzyl)-9-((tetrahydro-2H-pyran-4-yl)methyl)-6,8,9,10,11,12-hexahydro-5H-[1,2,4]triazolo[1",5":1',6']pyrimido[5',4':4,5]thieno[2,3-c]azepin-5-one;

6-(4-Methoxybenzyl)-8-((tetrahydro-2H-pyran-4-yl)methyl)-8,9,10,11-tetrahydropyrido[3',2':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-8-((tetrahydro-2H-pyran-3-yl)methyl)-8,9,10,11-tetrahydropyrido[3',2':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-8-((tetrahydrofuran-3-yl)methyl)-8,9,10,11-tetrahydropyrido[3',2':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

9-(1,1-Difluoropropan-2-yl)-6-(4-Methoxybenzyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-(4-Chlorobenzyl)-6-(4-Methoxybenzyl)-8,9,10,11-tetrahydropyrido[3',2':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-(4-Chlorobenzyl)-6-(3,4-dimethoxybenzyl)-8,9,10,11-tetrahydropyrido[3',2':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-Benzyl-6-(3,4-dimethoxybenzyl)-8,9,10,11-tetrahydropyrido[3',2':4,5]thieno[3,2-

e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-(3-Chlorobenzyl)-6-(3,4-dimethoxybenzyl)-8,9,10,11-tetrahydropyrido[3',2':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

11,11-Difluoro-6-(2-fluoro-4-methoxybenzyl)-9-((tetrahydro-2H-pyran-4-yl)methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Chlorobenzyl)-9-(pyrazine-2-carbonyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Chlorobenzyl)-9-(cyclopropanecarbonyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

9-(Cyclopropanecarbonyl)-6-(4-Methoxybenzyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

9-(2,2-Difluorocyclopropanecarbonyl)-6-(4-Methoxybenzyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-(tetrahydrofuran-3-carbonyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-(methylsulfonyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-(1-methylpyrrolidine-3-carbonyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Chloro-2-fluorobenzyl)-9-(cyclopropanecarbonyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Chloro-2-fluorobenzyl)-9-(tetrahydrofuran-3-carbonyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

11,11-Difluoro-6-(4-Methoxybenzyl)-9-(tetrahydrofuran-3-carbonyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(2-Fluoro-4-methoxybenzyl)-9-(tetrahydrofuran-3-carbonyl)-8,9,10,11-

tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(2-Fluoro-4-methoxybenzyl)-9-(tetrahydrofuran-3-carbonyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

9-(Cyclopropanecarbonyl)-6-(2-fluoro-4-methoxybenzyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

(R)-6-(4-Methoxybenzyl)-9-(tetrahydrofuran-3-carbonyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-(tetrahydrofuran-3-carbonyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-(tetrahydrofuran-3-carbonyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

(R)-6-(4-Methoxybenzyl)-9-(tetrahydrofuran-3-carbonyl)-6,8,9,10,11,12-hexahydro-5H-[1,2,4]triazolo[1",5":1',6']pyrimido[5',4':4,5]thieno[2,3-c]azepin-5-one;

9-(Cyclopropanecarbonyl)-6-(4-Methoxybenzyl)-6,8,9,10,11,12-hexahydro-5H-[1,2,4]triazolo[1",5":1',6']pyrimido[5',4':4,5]thieno[2,3-c]azepin-5-one;

8-(Cyclopropanecarbonyl)-6-(4-Methoxybenzyl)-8,9,10,11-tetrahydropyrido[3',2':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-8-(tetrahydrofuran-3-carbonyl)-8,9,10,11-tetrahydropyrido[3',2':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-Benzoyl-6-(3,4-dimethoxybenzyl)-8,9,10,11-tetrahydropyrido[3',2':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-(3-Chlorobenzoyl)-6-(3,4-dimethoxybenzyl)-8,9,10,11-tetrahydropyrido[3',2':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-(4-Chlorobenzoyl)-6-(3,4-dimethoxybenzyl)-8,9,10,11-tetrahydropyrido[3',2':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-(pyridin-2-yl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-

e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-(morpholin-2-ylmethyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-(pyrrolidine-3-carbonyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-8,9,10,11-tetrahydropyrido[3',4':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-(piperidin-4-ylmethyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-8-((4-(pyridin-4-yloxy)piperidin-1-yl)methyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((4-(2-Fluorophenyl)piperazin-1-yl)methyl)-6-(4-Methoxybenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((4-(3-Fluorophenyl)piperazin-1-yl)methyl)-6-(4-Methoxybenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((4-(4-Fluorophenyl)piperazin-1-yl)methyl)-6-(4-Methoxybenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-((3-phenoxypyrrolidin-1-yl)methyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((3-(2-Fluorophenoxy)azetidin-1-yl)methyl)-6-(4-Methoxybenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-8-((4-morpholinopiperidin-1-yl)methyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((1,1-Difluoro-5-azaspiro[2.4]heptan-5-yl)methyl)-6-(4-Methoxybenzyl)thieno[3,2-

e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((4-Acetyl-1,4-diazepan-1-yl)methyl)-6-(4-Methoxybenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((1,4-Oxazepan-4-yl)methyl)-6-(2,3-difluoro-4-methoxybenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

9-((3-(Hydroxymethyl)-3-isobutylpiperidin-1-yl)methyl)-6-(4-Methoxybenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-(((2,2-Dimethyltetrahydro-2H-pyran-4-yl)(ethyl)amino)methyl)-6-(4-Methoxybenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

9-((Ethyl((tetrahydro-2H-pyran-4-yl)methyl)amino)methyl)-6-(4-Methoxybenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((Ethyl((tetrahydro-2H-pyran-4-yl)methyl)amino)methyl)-6-(4-Methoxybenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-((methyl((tetrahydro-2H-pyran-4-yl)methyl)amino)methyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(2,3-Difluoro-4-methoxybenzyl)-8-(((2R,6S)-2,6-dimethylmorpholino)methyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-(((2R,6S)-2,6-Dimethylmorpholino)methyl)-6-(3-fluoro-4-methoxybenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-(((2R,6S)-2,6-Dimethylmorpholino)methyl)-6-(2-fluoro-4-methoxybenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-((((tetrahydro-2H-pyran-4-yl)methyl)amino)methyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-8-((methyl(tetrahydro-2H-pyran-4-yl)amino)methyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(3-Chloro-4-fluorobenzyl)-8-(((2R,6S)-2,6-dimethylmorpholino)methyl)thieno[3,2-

e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((1,1-Dioxidothiomorpholino)methyl)-6-(4-Methoxybenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(3-Fluoro-4-methoxybenzyl)-8-(morpholinomethyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(2-Fluoro-4-methoxybenzyl)-8-(morpholinomethyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(3-Chloro-4-fluorobenzyl)-8-(morpholinomethyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(2,3-Difluoro-4-methoxybenzyl)-8-((methyl((3-methyloxetan-3-yl)methyl)amino)methyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-8-((((3-methyloxetan-3-yl)methyl)amino)methyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(2,3-Difluoro-4-methoxybenzyl)-8-((3-hydroxyazetidin-1-yl)methyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(2-Fluoro-4-methoxybenzyl)-8-((3-hydroxyazetidin-1-yl)methyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(2,3-Difluoro-4-methoxybenzyl)-8-((dimethylamino)methyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

9-((Diisopropylamino)methyl)-6-(4-Methoxybenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-10-((tetrahydro-2H-pyran-4-yl)methyl)-8,9,10,11-tetrahydropyrido[3',4':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-6,8,9,10,11,12-hexahydro-5H-[1,2,4]triazolo[1",5":1',6']pyrimido[5',4':4,5]thieno[2,3-c]azepin-5-one;

11,11-Difluoro-9-isobutyl-6-(4-Methoxybenzyl)-8,9,10,11-

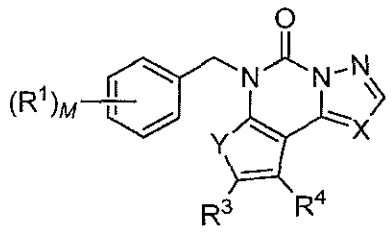
tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

11,11-Difluoro-6-(4-Methoxybenzyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-8,9,10,11-tetrahydropyrido[3',2':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

and pharmaceutically acceptable salts thereof; and pharmaceutically acceptable prodrugs thereof.

29. A pharmaceutical composition comprising an effective amount of a chemical entity of Formula (I):



(I)

wherein:

X is -CH- or -N-;

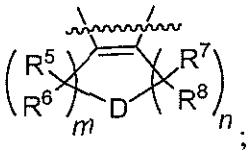
Y is -O- or -S-;

M is 0-5;

R^1 is each independently selected from the group consisting of: H, halo, -CN, -C_{1-6}alkyl, -C_{1-6}haloalkyl, -C_{1-6}thioalkyl, -C_{1-6}alkoxy, -C_{1-6}haloalkoxy, -SO_2C_{1-6}alkyl, aryl, heteroaryl, and heterocycloalkyl;

R^3 and R^4 are each independently selected from the group consisting of -H, halo, -C_{1-6}alkyl, -C_{1-6}haloalkyl, -CH_2OH, -C_{1-6}alkoxy, -C_{1-6}haloalkoxy, aryl, optionally substituted 5 or 6 membered heteroaryl, -(C_1-C_6alkyl)aryl, -(C_1-C_6 alkyl)heteroaryl, and -$(CR^{10}R^{11})_{1-3}NR^{12}R^{13}$;

or R^3 and R^4 taken together with the carbons to which they are attached form a saturated or unsaturated monocylic ring system, having the following structure:



;

D is -O-, -N(R^9)-, or a bond;

m and *n* are each independently 0-4, with the proviso that the sum of *m* and *n* is 1-5 when D is -O-, -N(R^9)-, or is 2-6 when D is a bond; and with the proviso that when D is a bond, R^1 is not -Cl in the *para* position;

R^5, R^6, R^7, R^8, are each independently selected from the group consisting of: -H, -F, -C_{1-6}alkyl, -C_{1-6}haloalkyl, -OH, -C_{1-6}alkoxy, -C_{1-6}haloalkoxy;

R^9 is selected from the group consisting of: -H, -C_{1-6}alkyl, -C_{1-6}thioalkyl, -C_{1-6}haloalkyl, -CO_2C_{1-6}alkyl, -SO_2(C_{1-6}alkyl), -C_{1-6}alkyl(aryl), -C_{1-6}alkyl(C_{3-6}cycloalkyl), -C_{1-6}alkyl(heterocycloalkyl), -C_{1-6}alkyl(heteroaryl), heteroaryl, -CO(aryl), -CO(heteroaryl), -CO(heterocycloalkyl), -CO(C_{3-6}cycloalkyl), wherein each aryl, cycloalkyl, heterocycloalkyl, heteroaryl are optionally unsubstituted or substituted with a member each independently selected from the group consisting of -H, -Cl, -F, and -CH_3;

R^{10} and R^{11} are each independently selected from the group consisting of: -H, -F, -C_{1-6}alkyl, -CF_3, and -OH;

R^{12} and R^{13} are each independently selected from the group consisting of: -H, -C_{1-6} alkyl, -C_{3-6}cycloalkyl, -C_{1-6}alkyl(aryl), -C_{1-6}alkyl(heteroaryl), -C_{1-6}alkyl(heterocycloalkyl), -$CH_2CON(C_{1-6}alkyl)_2$;

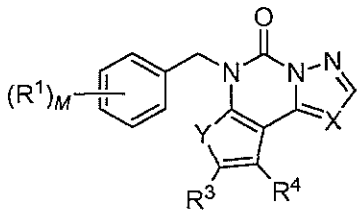
or R^{12} and R^{13} are taken together with the nitrogen to which they are attached form a heterocycloalkyl ring, optionally substituted with one or more R^{14}, where each R^{14} is independently selected from the group consisting of: -H, -C_{1-6}alkyl, -CH_2OH, -OH, -$COCH_3$, -SO_2CH_3, -O-pyridyl, 2-fluorophenyl, 3-fluorophenyl, 4-fluorophenyl, -O-phenyl, -O-(2-fluorophenyl), -morpholino, 1,1-difluoro-cyclopropyl, or two R^{14} members are taken together to form a -C_{3-6}heterocycloalkyl; and

wherein the chemical entity is selected from the group consisting of compounds of Formula (I), pharmaceutically acceptable salts of compounds of Formula (I),

pharmaceutically acceptable prodrugs of compounds of Formula (I), and pharmaceutically acceptable metabolites of compounds of Formula (I).

30. A pharmaceutical composition comprising an effective amount of at least one chemical entity of claim 1 or 28.

31. A method of treating a disease, disorder, or medical condition mediated by PDE1 enzymatic activity, comprising administering to a subject in need of such treatment an effective amount of a chemical entity of Formula (I):



(I)

wherein:

X is -CH- or -N-;

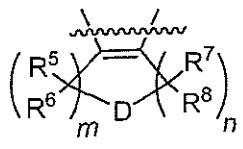
Y is -O- or -S-;

M is 0-5;

R^1 is each independently selected from the group consisting of: H, halo, -CN, -C_{1-6}alkyl, -C_{1-6}haloalkyl, -C_{1-6}thioalkyl, -C_{1-6}alkoxy, -C_{1-6}haloalkoxy, -SO_2C_{1-6}alkyl, aryl, heteroaryl, and heterocycloalkyl;

R^3 and R^4 are each independently selected from the group consisting of -H, halo, -C_{1-6}alkyl, -C_{1-6}haloalkyl, -CH_2OH, -C_{1-6}alkoxy, -C_{1-6}haloalkoxy, aryl, optionally substituted 5 or 6 membered heteroaryl, -(C_1-C_6alkyl)aryl, -(C_1-C_6alkyl)heteroaryl, and -$(CR^{10}R^{11})_{1-3}NR^{12}R^{13}$;

or R^3 and R^4 taken together with the carbons to which they are attached form a saturated or unsaturated monocylic ring system, having the following structure:



;

D is -O-, -N(R^9)-, or a bond;

m and *n* are each independently 0-4, with the proviso that the sum of *m* and *n* is 1-5 when D is -O-, -N(R^9)-, or is 2-6 when D is a bond; and with the proviso that when D is a bond, R^1 is not -Cl in the *para* position;

R^5, R^6, R^7, R^8, are each independently selected from the group consisting of: -H, -F, -C_{1-6}alkyl, -C_{1-6}haloalkyl, -OH, -C_{1-6}alkoxy, -C_{1-6}haloalkoxy;

R^9 is selected from the group consisting of: -H, -C_{1-6}alkyl, -C_{1-6}thioalkyl, -C_{1-6}haloalkyl, -CO_2C_{1-6}alkyl, -SO_2(C_{1-6}alkyl), -C_{1-6}alkyl(aryl), -C_{1-6}alkyl(C_{3-6}cycloalkyl), -C_{1-6}alkyl(heterocycloalkyl), -C_{1-6}alkyl(heteroaryl), heteroaryl, -CO(aryl), -CO(heteroaryl), -CO(heterocycloalkyl), -CO(C_{3-6}cycloalkyl), wherein each aryl, cycloalkyl, heterocycloalkyl, heteroaryl are optionally unsubstituted or substituted with a member each independently selected from the group consisting of -H, -Cl, -F, and -CH_3;

R^{10} and R^{11} are each independently selected from the group consisting of: -H, -F, -C_{1-6}alkyl, -CF_3 and -OH;

R^{12} and R^{13} are each independently selected from the group consisting of: -H, -C_{1-6} alkyl, -C_{3-6}cycloalkyl, -C_{1-6}alkyl(aryl), -C_{1-6}alkyl(heteroaryl), -C_{1-6}alkyl(heterocycloalkyl), -$CH_2CON(C_{1-6}alkyl)_2$;

or R^{12} and R^{13} are taken together with the nitrogen to which they are attached form a heterocycloalkyl ring, optionally substituted with one or more R^{14}, where each R^{14} is independently selected from the group consisting of: -H, -C_{1-6}alkyl, -CH_2OH, -OH, -$COCH_3$, -SO_2CH_3, -O-pyridyl, 2-fluorophenyl, 3-fluorophenyl, 4-fluorophenyl, -O-phenyl, -O-(2-fluorophenyl), -morpholino, 1,1-difluoro-cyclopropyl, or two R^{14} members are taken together to form a -C_{3-6}heterocycloalkyl; and

wherein the chemical entity is selected from the group consisting of compounds of Formula (I), pharmaceutically acceptable salts of compounds of Formula (I), pharmaceutically acceptable prodrugs of compounds of Formula (I), and pharmaceutically acceptable metabolites of compounds of Formula (I).

32. The method of Claim 31, wherein Y is -S-.

33. A method of treating a disease, disorder, or medical condition mediated by a PDE1 enzyme, comprising administering to an animal in need of such treatment an effective amount of a chemical entity of claim 1 or claim 28.

34. The use of a chemical entity or composition of any one of the preceding claims in a method of treating a disease or disorder selected from the group comprising neurological disorders, cognitive disorders, cardiovascular disorders, renal disorders, hematological disorders, gastrointestinal and liver disorders, cancer disorders, and neurodegenerative disorders, said method comprising administering an effective amount of the chemical entity of composition to a patient in need thereof.

35. The use of a chemical entity or composition of any one of preceding claims 1-30 in a method of treating a CNS disorder, comprising administration of an effective amount of the chemical entity or composition to a patient in need thereof.

36. The use of claim 35, wherein the CNS disorder is selected from one or more of the group comprising dementias and neurodegenerative disorders, cognitive disorders, psychiatric disorders, developmental and genetic conditions, age-associated memory impairments, and learning disabilities.

37. The use of claim 35, wherein the CNS disorder is selected from one or more of the group comprising Huntington's disease, Parkinson's disease, Alzheimer's disease, schizophrenia, mild-cognitive impairment, and ADHD.

38. The use of claim 35, wherein the CNS disorder is a cognitive disorder associated with a progressive nervous system disease.

39. The use of claim 38, wherein the progressive nervous system disease is multiple sclerosis.

40. The use of a chemical entity or composition of any of claims 1-30 in a method of treating a cognitive impairment, comprising:

(a) providing cognitive training to an animal in need of treatment of a cognitive impairment under conditions sufficient to produce an improvement in performance by said animal of a cognitive function whose deficit is associated with said cognitive impairment;

(b) administering a chemical entity or composition of any of claims 1-30 to said animal in conjunction with said cognitive training;

(c) repeating said providing and administering steps one or more times; and

(d) reducing the number of training sessions sufficient to produce the improvement in performance, relative to the improvement in performance produced by cognitive training alone.

41. The use of a chemical entity or composition of any of claims 1-30 in a method of treating a vascular disorder, comprising administering an effective amount of the chemical entity or composition to a patient in need thereof.

42. The use of claim 41, wherein the vascular disorder is selected from one or more of the group comprising atherosclerosis, post-angioplasty restenosis, allograft vasculopathy, and pulmonary hypertension.

43. The use of claim 42, wherein the vascular disorder is heart failure or congestive heart failure.

44. The use of claim 42, wherein the vascular disorder is caused by myocardial infarction, ischemic heart disease, hypertension, valvular heart disease, or cardiomyopathy.

45. The use of a chemical entity or composition of any of claims 1-30 in a method of treating a renal disorder, said method comprising administering an effective amount of the chemical entity or composition to a patient in need thereof.

46. The use of claim 45, wherein the renal disorder is selected from one or more of the group comprising renal artery stenosis, pyelonephritis, glomerulonephritis, kidney tumors, polycystic kidney disease, injury to the kidney, and damage resulting from radiation of the kidney.

47. The use of a chemical entity or composition of any of claims 1-30 in a method of treating, an injury or disease that results in neuronal degeneration, said method comprising administering an effective amount of the chemical entity or composition to a patient in need thereof.

48. The use of claim 47, wherein the injury is a primary nervous system injury selected from the group comprising closed head injuries, blunt trauma, penetrating trauma, hemorrhagic stroke, ischemic stroke, glaucoma, cerebral ischemia, and neuronal damage caused by surgical procedures.

49. The use of claim 48, wherein the injury is secondary degeneration resulting from a primary nervous system injury.

50. The use of a chemical entity or composition of any of claims 1-30 in a method of promoting neurogenesis, comprising administering an effective amount of the chemical entity or composition to an animal.

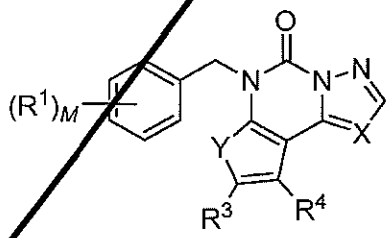
51. The use of a chemical entity or composition of any of claims 1-30 in a method of treating a disorder that includes an aberrant or dysregulated signaling pathway mediated by PDE1.

52. The use of claim 51, wherein the signaling pathway mediated by PDE1 involves nitric oxide, natriuretic peptides, dopamine, noradrenalin, neurotensin, cholecystokinin (CCK), vasoactive intestinal peptide, serotonin, glutamate, GABA, acetylcholine, adenosine, cannabinoids, natriuretic peptides, or endorphins.

53. The use of claim 51, wherein the disorder is characterized by alterations in dopamine signaling.

54. The use of a chemical entity or composition of any of claims 1-30 in a method of treating substance or drug abuse, or a fetal alcohol spectrum disorder, comprising administering an effective amount of the chemical entity or composition to a patient.

55. A method for modulating PDE1 enzyme activity, comprising exposing a PDE1 enzyme to an effective amount of at least one chemical entity selected from compounds of Formula (I).



(I)

wherein:

X is -CH- or -N-;

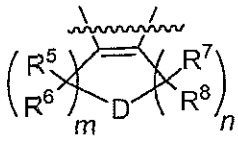
Y is -O- or -S-;

M is 0-5;

R^1 is each independently selected from the group consisting of: H, halo, -CN, -C_{1-6}alkyl, -C_{1-6}haloalkyl, -C_{1-6}thioalkyl, -C_{1-6}alkoxy, -C_{1-6}haloalkoxy, -SO_2C_{1-6}alkyl, aryl, heteroaryl, and heterocycloalkyl;

R^3 and R^4 are each independently selected from the group consisting of -H, halo, -C_{1-6}alkyl, -C_{1-6}haloalkyl, -CH_2OH, -C_{1-6}alkoxy, -C_{1-6}haloalkoxy, aryl, optionally substituted 5 or 6 membered heteroaryl, -(C_1-C_6alkyl)aryl, -(C_1-C_6 alkyl)heteroaryl, and -$(CR^{10}R^{11})_{1-3}NR^{12}R^{13}$;

or R^3 and R^4 taken together with the carbons to which they are attached form a saturated or unsaturated monocylic ring system, having the following structure:



;

D is -O-, -N(R^9)-, or a bond;

m and *n* are each independently 0-4, with the proviso that the sum of *m* and *n* is 1-5 when D is -O-, -N(R^9)-, or is 2-6 when D is a bond; and with the proviso that when D is a bond, R^1 is not -Cl in the *para* position;

R^5, R^6, R^7, R^8, are each independently selected from the group consisting of: -H, -F, -C_{1-6}alkyl, -C_{1-6}haloalkyl, -OH, -C_{1-6}alkoxy, -C_{1-6}haloalkoxy;

R^9 is selected from the group consisting of: -H, -C_{1-6}alkyl, -C_{1-6}thioalkyl, -C_{1-6}haloalkyl, -CO_2C_{1-6}alkyl, -SO_2(C_{1-6}alkyl), -C_{1-6}alkyl(aryl), -C_{1-6}alkyl(C_{3-6}cycloalkyl), -C_{1-6}alkyl(heterocycloalkyl), -C_{1-6}alkyl(heteroaryl), heteroaryl, -CO(aryl), -CO(heteroaryl), -CO(heterocycloalkyl), -CO(C_{3-6}cycloalkyl), wherein each aryl, cycloalkyl, heterocycloalkyl, heteroaryl are optionally unsubstituted or substituted with a member each independently selected from the group consisting of -H, -Cl, -F, and -CH_3;

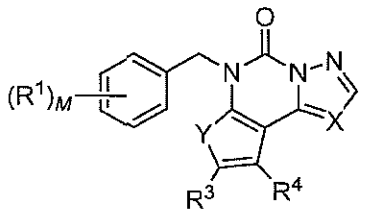
R^{10} and R^{11} are each independently selected from the group consisting of: -H, -F, -C_{1-6}alkyl, -CF_3 and -OH;

R^{12} and R^{13} are each independently selected from the group consisting of: -H, -C_{1-6} alkyl, -C_{3-6}cycloalkyl, -C_{1-6}alkyl(aryl), -C_{1-6}alkyl(heteroaryl), -C_{1-6}alkyl(heterocycloalkyl), -$CH_2CON(C_{1-6}alkyl)_2$;

or R^{12} and R^{13} are taken together with the nitrogen to which they are attached form a heterocycloalkyl ring, optionally substituted with one or more R^{14}, where each R^{14} is independently selected from the group consisting of: -H, -C_{1-6}alkyl, -CH_2OH, -OH, -$COCH_3$, -SO_2CH_3, -O-pyridyl, 2-fluorophenyl, 3-fluorophenyl, 4-fluorophenyl, -O-phenyl, -O-(2-fluorophenyl), -morpholino, 1,1-difluoro-cyclopropyl, or two R^{14} members are taken together to form a -C_{3-6}heterocycloalkyl;

and pharmaceutically acceptable salt of compounds of Formula (I), pharmaceutically acceptable prodrugs of compounds of Formula (I); and pharmaceutically active metabolites of compounds of Formula (I).

56. A compound, or pharmaceutically acceptable salt thereof, of Formula I:



(I)

wherein:

X is -CH- or -N-;

Y is -O- or -S-;

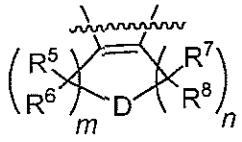
M is 0-5;

R^1 is each independently selected from the group consisting of: H, halo, -CN, -C_{1-6}alkyl, -C_{1-6}haloalkyl, -C_{1-6}thioalkyl, -C_{1-6}alkoxy, -C_{1-6}haloalkoxy, -SO_2C_{1-6}alkyl, aryl, heteroaryl, and heterocycloalkyl;

R^3 and R^4 are each independently selected from the group consisting of -H, halo, -C_{1-6}alkyl, -C_{1-6}haloalkyl, -CH_2OH, -C_{1-6}alkoxy, -C_{1-6}haloalkoxy, aryl, optionally substituted 5 or

6 membered heteroaryl, -(C_1-C_6alkyl)aryl, -(C_1-C_6 alkyl)heteroaryl, and -($CR^{10}R^{11}$)$_{1-3}$$NR^{12}R^{13}$;

or R^3 and R^4 taken together with the carbons to which they are attached form a saturated or unsaturated monocylic ring system, having the following structure:



;

D is -O-, -N(R^9)-, or a bond;

m and *n* are each independently 0-4, with the proviso that the sum of *m* and *n* is 1-5 when D is -O-, -N(R^9)-, or is 2-6 when D is a bond; and with the proviso that when D is a bond, R^1 is not -Cl in the *para* position;

R^5, R^6, R^7, R^8, are each independently selected from the group consisting of: -H, -F, -C_{1-6}alkyl, -C_{1-6}haloalkyl, -OH, -C_{1-6}alkoxy, -C_{1-6}haloalkoxy;

R^9 is selected from the group consisting of: -H, -C_{1-6}alkyl, -C_{1-6}thioalkyl, -C_{1-6}haloalkyl, -CO_2C_{1-6}alkyl, -SO_2(C_{1-6}alkyl), -C_{1-6}alkyl(aryl), -C_{1-6}alkyl(C_{3-6}cycloalkyl), -C_{1-6}alkyl(heterocycloalkyl), -C_{1-6}alkyl(heteroaryl), heteroaryl, -CO(aryl), -CO(heteroaryl), -CO(heterocycloalkyl), -CO(C_{3-6}cycloalkyl), wherein each aryl, cycloalkyl, heterocycloalkyl, heteroaryl are optionally unsubstituted or substituted with a member each independently selected from the group consisting of -H, -Cl, -F, and -CH_3;

R^{10} and R^{11} are each independently selected from the group consisting of: -H, -F, -C_{1-6}alkyl, -CF_3 and -OH;

R^{12} and R^{13} are each independently selected from the group consisting of: -H, -C_{1-6} alkyl, -C_{3-6}cycloalkyl, -C_{1-6}alkyl(aryl), -C_{1-6}alkyl(heteroaryl), -C_{1-6}alkyl(heterocycloalkyl), -$CH_2CON(C_{1-6}alkyl)_2$;

or R^{12} and R^{13} are taken together with the nitrogen to which they are attached form a heterocycloalkyl ring, optionally substituted with one or more R^{14}, where each R^{14} is independently selected from the group consisting of: -H, -C_{1-6}alkyl, -CH_2OH, -OH, -$COCH_3$, -SO_2CH_3, -O-pyridyl, 2-fluorophenyl, 3-fluorophenyl, 4-fluorophenyl, -O-

phenyl, -O-(2-fluorophenyl), -morpholino, 1,1-difluoro-cyclopropyl, or two R^{14} members are taken together to form a -C_{3-6}heterocycloalkyl.

57. A compound, or pharmaceutically acceptable salt thereof, selected from the group consisting of:

6-(2-Chlorobenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(3-Chlorobenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Chlorobenzyl)-9-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-([1,1'-Biphenyl]-4-ylmethyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Chlorobenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-Benzyl-9-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-([1,1'-Biphenyl]-4-ylmethyl)-9-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-Benzyl-6-(2-chlorobenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-Benzyl-6-(3-chlorobenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(2-Chlorobenzyl)-9-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(3-Chlorobenzyl)-9-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-Benzyl-8-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(2-Chlorobenzyl)-8-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-([1,1'-Biphenyl]-4-ylmethyl)-8-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Chlorobenzyl)-8-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(3-Chlorobenzyl)-8-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6,8-Dibenzylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-([1,1'-Biphenyl]-4-ylmethyl)-8-benzylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(2-Chlorobenzyl)-8-isopentylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(3-Chlorobenzyl)-8-isopentylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-([1,1'-Biphenyl]-4-ylmethyl)-8-isopentylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-Benzyl-6-(4-chlorobenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Chlorobenzyl)-8-isopentylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-Benzylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-Benzyl-8-isopentylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Chlorobenzyl)-8,9-dimethylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((1,4-Oxazepan-4-yl)methyl)-6-(4-methoxybenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((Dimethylamino)methyl)-6-(4-methoxybenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-8-(morpholinomethyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-8-((4-methylpiperazin-1-yl)methyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-(((2S,6R)-2,6-Dimethylmorpholino)methyl)-6-(4-methoxybenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((4-Ethyl-3-oxopiperazin-1-yl)methyl)-6-(4-methoxybenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-8-((4-(methylsulfonyl)piperazin-1-yl)methyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((2,2-dimethylmorpholino)methyl)-6-(4-Methoxybenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-(2-oxa-5-azabicyclo[2.2.1]heptan-5-ylmethyl)-6-(4-Methoxybenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-(7-oxa-2-azaspiro[3.5]nonan-2-ylmethyl)-6-(4-Methoxybenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-(2-Oxa-7-azaspiro[3.5]nonan-7-ylmethyl)-6-(4-methoxybenzyl)thieno[3,2-c][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

7-((6-(4-Methoxybenzyl)-5-oxo-5,6-dihydrothieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-8-yl)methyl)tetrahydro-1H-oxazolo[3,4-a]pyrazin-3(5H)-one;

6-(4-Methoxybenzyl)-8-(1-methyl-3-(trifluoromethyl)-1H-pyrazol-5-yl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-(3,5-Dimethylisoxazol-4-yl)-6-(4-methoxybenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-methyl-8-(pyrrolidin-1-ylmethyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-methyl-8-(morpholinomethyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((Dimethylamino)methyl)-6-(4-methoxybenzyl)-9-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((Cyclopropyl(methyl)amino)methyl)-6-(4-methoxybenzyl)-9-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((4-Hydroxypiperidin-1-yl)methyl)-6-(4-methoxybenzyl)-9-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((Benzyl(2-hydroxyethyl)amino)methyl)-6-(4-methoxybenzyl)-9-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-methyl-8-(piperazin-1-ylmethyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-methyl-8-((((3-methyloxetan-3-yl)methyl)amino)methyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((4-Acetylpiperazin-1-yl)methyl)-6-(4-methoxybenzyl)-9-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-methyl-8-(((pyridin-3-ylmethyl)amino)methyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-methyl-8-((3-oxopiperazin-1-yl)methyl)thieno[3,2-

e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-methyl-8-((methyl((tetrahydrofuran-2-yl)methyl)amino)methyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-(((2S,6R)-2,6-Dimethylmorpholino)methyl)-6-(4-methoxybenzyl)-9-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-(Isoindolin-2-ylmethyl)-6-(4-methoxybenzyl)-9-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((Cyclopropylamino)methyl)-6-(4-methoxybenzyl)-9-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

(S)-6-(4-Methoxybenzyl)-8-((2-(methoxymethyl)pyrrolidin-1-yl)methyl)-9-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-methyl-8-((methyl((tetrahydrofuran-3-yl)methyl)amino)methyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

2-(((6-(4-Methoxybenzyl)-9-methyl-5-oxo-5,6-dihydrothieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-8-yl)methyl)(methyl)amino)-N,N-dimethylacetamide;

8-((1,4-Oxazepan-4-yl)methyl)-6-(4-methoxybenzyl)-9-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-methyl-8-((4-methylpiperazin-1-yl)methyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-methyl-8-((4-(methylsulfonyl)piperazin-1-yl)methyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((4-Isopropylpiperazin-1-yl)methyl)-6-(4-methoxybenzyl)-9-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-(2-Oxa-5-azabicyclo[2.2.1]heptan-5-ylmethyl)-6-(4-methoxybenzyl)-9-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((4-Ethyl-3-oxopiperazin-1-yl)methyl)-6-(4-methoxybenzyl)-9-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-(8-Oxa-3-azabicyclo[3.2.1]octan-3-ylmethyl)-6-(4-methoxybenzyl)-9-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((2-Ethylmorpholino)methyl)-6-(4-methoxybenzyl)-9-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((2,2-Dimethylmorpholino)methyl)-6-(4-methoxybenzyl)-9-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-methyl-8-((2-methylmorpholino)methyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-methyl-8-((3-methylmorpholino)methyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-(((3R,5S)-3,5-Dimethylpiperazin-1-yl)methyl)-6-(4-methoxybenzyl)-9-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((3,4-Dimethylpiperazin-1-yl)methyl)-6-(4-methoxybenzyl)-9-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-methyl-8-((3,3,4-trimethylpiperazin-1-yl)methyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

(S)-8-((Hexahydropyrrolo[1,2-a]pyrazin-2(1H)-yl)methyl)-6-(4-methoxybenzyl)-9-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-Bromo-6-(4-methoxybenzyl)-9-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-(Hydroxymethyl)-6-(4-methoxybenzyl)-9-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

9-(((2S,6R)-2,6-Dimethylmorpholino)methyl)-6-(4-methoxybenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Chlorobenzyl)-8,9-dimethylfuro[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

tert-Butyl 6-(4-methoxybenzyl)-5-oxo-5,6,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidine-9(8H)-carboxylate;

6-(2-Chlorobenzyl)-8,9,10,11-tetrahydrobenzo[4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

4-(4-Methoxybenzyl)-2-(morpholinomethyl)pyrazolo[1,5-c]thieno[3,2-e]pyrimidin-5(4H)-one;

6-(4-Chlorobenzyl)-10,10-dimethyl-6,8,10,11-tetrahydro-5H-pyrano[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5-one;

6-Benzyl-8,9,10,11-tetrahydrobenzo[4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(3-Chlorobenzyl)-8,9,10,11-tetrahydrobenzo[4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-([1,1'-Biphenyl]-4-ylmethyl)-8,9,10,11-tetrahydrobenzo[4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Chlorobenzyl)-6,8,10,11-tetrahydro-5H-pyrano[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5-one;

6-(4-Methylbenzyl)-6,8,10,11-tetrahydro-5H-pyrano[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5-one;

6-(4-(Trifluoromethyl)benzyl)-6,8,10,11-tetrahydro-5H-pyrano[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5-one;

6-(4-Methoxybenzyl)-6,8,10,11-tetrahydro-5H-pyrano[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5-one;

6-(3,4-Dichlorobenzyl)-6,8,10,11-tetrahydro-5H-pyrano[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5-one;

6-(4-Fluorobenzyl)-6,8,10,11-tetrahydro-5H-pyrano[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5-one;

6-(4-Chloro-3-fluorobenzyl)-6,8,10,11-tetrahydro-5H-pyrano[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5-one;

6-(4-Chloro-2-fluorobenzyl)-6,8,10,11-tetrahydro-5H-pyrano[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5-one;

6-(3-Fluoro-4-methoxybenzyl)-6,8,10,11-tetrahydro-5H-pyrano[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5-one;

6-(4-(Trifluoromethoxy)benzyl)-6,8,10,11-tetrahydro-5H-pyrano[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5-one;

6-(4-Ethoxybenzyl)-6,8,10,11-tetrahydro-5H-pyrano[4',3':4,5]thieno[3,2-

e][1,2,4]triazolo[1,5-c]pyrimidin-5-one;

6-(3,5-Difluoro-4-methoxybenzyl)-6,8,10,11-tetrahydro-5H-pyrano[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5-one;

6-(4-Chlorobenzyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(3,4-Dimethoxybenzyl)-8,9,10,11-tetrahydropyrido[3',2':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Chlorobenzyl)-9-methyl-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

9-Benzyl-6-(4-chlorobenzyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Chlorobenzyl)-9-(cyclopropylmethyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

2-(((2S,6R)-2,6-Dimethylmorpholino)methyl)-4-(4-methoxybenzyl)pyrazolo[1,5-c]thieno[3,2-e]pyrimidin-5(4H)-one;

6-(4-Chlorobenzyl)-9-((tetrahydro-2H-pyran-4-yl)methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Chlorobenzyl)-9-(oxetan-3-yl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Chlorobenzyl)-9-(2,2,2-trifluoroethyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-((5-methyl-1,3,4-thiadiazol-2-yl)methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-c][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-((tetrahydro-2H-pyran-4-yl)methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

9-(Cyclopropylmethyl)-6-(4-methoxybenzyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-((3-methyloxetan-3-yl)methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-(3-(methylthio)propyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-((tetrahydrofuran-3-yl)methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

9-((2,2-Difluorobenzo[d][1,3]dioxol-5-yl)methyl)-6-(4-methoxybenzyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-neopentyl-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-(pyrimidin-2-ylmethyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-((tetrahydro-2H-pyran-2-yl)methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-(3-(methylsulfonyl)propyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-(pyrimidin-4-ylmethyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-(pyridin-2-ylmethyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-(pyridin-4-ylmethyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-((1-methyl-1H-imidazol-2-yl)methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-((4-methylthiazol-5-yl)methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

9-(1,1-Dioxidothietan-3-yl)-6-(4-methoxybenzyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

9-((1,4-Dioxan-2-yl)methyl)-6-(4-methoxybenzyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-((5-oxotetrahydrofuran-2-yl)methyl)-8,9,10,11-

tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

9-(4-Fluorobenzyl)-6-(4-methoxybenzyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

9-(2-Fluorobenzyl)-6-(4-methoxybenzyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Chloro-2-fluorobenzyl)-9-((tetrahydro-2H-pyran-4-yl)methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Chloro-2-fluorobenzyl)-9-(pyridin-2-ylmethyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Chloro-2-fluorobenzyl)-9-((1-methyl-1H-imidazol-2-yl)methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Chloro-2-fluorobenzyl)-9-(pyrimidin-2-ylmethyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Chloro-2-fluorobenzyl)-9-((tetrahydrofuran-3-yl)methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-((tetrahydro-2H-pyran-3-yl)methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

11,11-Difluoro-6-(4-methoxybenzyl)-9-((tetrahydro-2H-pyran-4-yl)methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

11,11-Difluoro-6-(4-methoxybenzyl)-9-((tetrahydro-2H-pyran-3-yl)methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(2-Fluoro-4-methoxybenzyl)-9-(pyrimidin-2-ylmethyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(2-Fluoro-4-methoxybenzyl)-9-((1-methyl-1H-imidazol-2-yl)methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(2-Fluoro-4-methoxybenzyl)-9-(pyridin-2-ylmethyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(2-Fluoro-4-methoxybenzyl)-9-((tetrahydrofuran-3-yl)methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(2-Fluoro-4-methoxybenzyl)-9-((tetrahydro-2H-pyran-4-yl)methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(2-Fluoro-4-methoxybenzyl)-9-((tetrahydro-2H-pyran-3-yl)methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-((tetrahydrofuran-3-yl)methyl)-6,8,9,10,11,12-hexahydro-5H-[1,2,4]triazolo[1",5":1',6']pyrimido[5',4':4,5]thieno[2,3-c]azepin-5-one;

6-(4-Methoxybenzyl)-9-((1-methyl-1H-imidazol-2-yl)methyl)-6,8,9,10,11,12-hexahydro-5H-[1,2,4]triazolo[1",5":1',6']pyrimido[5',4':4,5]thieno[2,3-c]azepin-5-one;

6-(4-Methoxybenzyl)-9-(pyrimidin-2-ylmethyl)-6,8,9,10,11,12-hexahydro-5H-[1,2,4]triazolo[1",5":1',6']pyrimido[5',4':4,5]thieno[2,3-c]azepin-5-one;

6-(4-Methoxybenzyl)-9-(pyridin-2-ylmethyl)-6,8,9,10,11,12-hexahydro-5H-[1,2,4]triazolo[1",5":1',6']pyrimido[5',4':4,5]thieno[2,3-c]azepin-5-one;

6-(4-Methoxybenzyl)-9-((tetrahydro-2H-pyran-4-yl)methyl)-6,8,9,10,11,12-hexahydro-5H-[1,2,4]triazolo[1",5":1',6']pyrimido[5',4':4,5]thieno[2,3-c]azepin-5-one;

6-(4-Methoxybenzyl)-8-((tetrahydro-2H-pyran-4-yl)methyl)-8,9,10,11-tetrahydropyrido[3',2':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-8-((tetrahydro-2H-pyran-3-yl)methyl)-8,9,10,11-tetrahydropyrido[3',2':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-8-((tetrahydrofuran-3-yl)methyl)-8,9,10,11-tetrahydropyrido[3',2':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

9-(1,1-Difluoropropan-2-yl)-6-(4-Methoxybenzyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-(4-Chlorobenzyl)-6-(4-Methoxybenzyl)-8,9,10,11-tetrahydropyrido[3',2':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-(4-Chlorobenzyl)-6-(3,4-dimethoxybenzyl)-8,9,10,11-tetrahydropyrido[3',2':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-Benzyl-6-(3,4-dimethoxybenzyl)-8,9,10,11-tetrahydropyrido[3',2':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-(3-Chlorobenzyl)-6-(3,4-dimethoxybenzyl)-8,9,10,11-tetrahydropyrido[3',2':4,5]thieno[3,2-

e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

11,11-Difluoro-6-(2-fluoro-4-methoxybenzyl)-9-((tetrahydro-2H-pyran-4-yl)methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Chlorobenzyl)-9-(pyrazine-2-carbonyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Chlorobenzyl)-9-(cyclopropanecarbonyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

9-(Cyclopropanecarbonyl)-6-(4-Methoxybenzyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

9-(2,2-Difluorocyclopropanecarbonyl)-6-(4-Methoxybenzyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-(tetrahydrofuran-3-carbonyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-(methylsulfonyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-(1-methylpyrrolidine-3-carbonyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Chloro-2-fluorobenzyl)-9-(cyclopropanecarbonyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Chloro-2-fluorobenzyl)-9-(tetrahydrofuran-3-carbonyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

11,11-Difluoro-6-(4-Methoxybenzyl)-9-(tetrahydrofuran-3-carbonyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(2-Fluoro-4-methoxybenzyl)-9-(tetrahydrofuran-3-carbonyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(2-Fluoro-4-methoxybenzyl)-9-(tetrahydrofuran-3-carbonyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

9-(Cyclopropanecarbonyl)-6-(2-fluoro-4-methoxybenzyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

(R)-6-(4-Methoxybenzyl)-9-(tetrahydrofuran-3-carbonyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-(tetrahydrofuran-3-carbonyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-(tetrahydrofuran-3-carbonyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

(R)-6-(4-Methoxybenzyl)-9-(tetrahydrofuran-3-carbonyl)-6,8,9,10,11,12-hexahydro-5H-[1,2,4]triazolo[1",5":1',6']pyrimido[5',4':4,5]thieno[2,3-c]azepin-5-one;

9-(Cyclopropanecarbonyl)-6-(4-Methoxybenzyl)-6,8,9,10,11,12-hexahydro-5H-[1,2,4]triazolo[1",5":1',6']pyrimido[5',4':4,5]thieno[2,3-c]azepin-5-one;

8-(Cyclopropanecarbonyl)-6-(4-Methoxybenzyl)-8,9,10,11-tetrahydropyrido[3',2':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-8-(tetrahydrofuran-3-carbonyl)-8,9,10,11-tetrahydropyrido[3',2':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-Benzoyl-6-(3,4-dimethoxybenzyl)-8,9,10,11-tetrahydropyrido[3',2':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-(3-Chlorobenzoyl)-6-(3,4-dimethoxybenzyl)-8,9,10,11-tetrahydropyrido[3',2':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-(4-Chlorobenzoyl)-6-(3,4-dimethoxybenzyl)-8,9,10,11-tetrahydropyrido[3',2':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-(pyridin-2-yl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-(morpholin-2-ylmethyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-(pyrrolidine-3-carbonyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-8,9,10,11-tetrahydropyrido[3',4':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-

c]pyrimidin-5(6H)-one; and

6-(4-Methoxybenzyl)-9-(piperidin-4-ylmethyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one.

58. A compound, or pharmaceutically acceptable salt thereof, selected from the group consisting of:

6-(4-Methoxybenzyl)-8-((4-(pyridin-4-yloxy)piperidin-1-yl)methyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((4-(2-Fluorophenyl)piperazin-1-yl)methyl)-6-(4-Methoxybenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((4-(3-Fluorophenyl)piperazin-1-yl)methyl)-6-(4-Methoxybenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((4-(4-Fluorophenyl)piperazin-1-yl)methyl)-6-(4-Methoxybenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-((3-phenoxypyrrolidin-1-yl)methyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((3-(2-Fluorophenoxy)azetidin-1-yl)methyl)-6-(4-Methoxybenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-8-((4-morpholinopiperidin-1-yl)methyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((1,1-Difluoro-5-azaspiro[2.4]heptan-5-yl)methyl)-6-(4-Methoxybenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((4-Acetyl-1,4-diazepan-1-yl)methyl)-6-(4-Methoxybenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((1,4-Oxazepan-4-yl)methyl)-6-(2,3-difluoro-4-methoxybenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

9-((3-(Hydroxymethyl)-3-isobutylpiperidin-1-yl)methyl)-6-(4-Methoxybenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-(((2,2-Dimethyltetrahydro-2H-pyran-4-yl)(ethyl)amino)methyl)-6-(4-Methoxybenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

9-((Ethyl((tetrahydro-2H-pyran-4-yl)methyl)amino)methyl)-6-(4-Methoxybenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((Ethyl((tetrahydro-2H-pyran-4-yl)methyl)amino)methyl)-6-(4-Methoxybenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-((methyl((tetrahydro-2H-pyran-4-yl)methyl)amino)methyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(2,3-Difluoro-4-methoxybenzyl)-8-(((2R,6S)-2,6-dimethylmorpholino)methyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-(((2R,6S)-2,6-Dimethylmorpholino)methyl)-6-(3-fluoro-4-methoxybenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-(((2R,6S)-2,6-Dimethylmorpholino)methyl)-6-(2-fluoro-4-methoxybenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-((((tetrahydro-2H-pyran-4-yl)methyl)amino)methyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-8-((methyl(tetrahydro-2H-pyran-4-yl)amino)methyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(3-Chloro-4-fluorobenzyl)-8-(((2R,6S)-2,6-dimethylmorpholino)methyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((1,1-Dioxidothiomorpholino)methyl)-6-(4-Methoxybenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(3-Fluoro-4-methoxybenzyl)-8-(morpholinomethyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(2-Fluoro-4-methoxybenzyl)-8-(morpholinomethyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(3-Chloro-4-fluorobenzyl)-8-(morpholinomethyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(2,3-Difluoro-4-methoxybenzyl)-8-((methyl((3-methyloxetan-3-yl)methyl)amino)methyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-8-((((3-methyloxetan-3-yl)methyl)amino)methyl)thieno[3,2-

e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(2,3-Difluoro-4-methoxybenzyl)-8-((3-hydroxyazetidin-1-yl)methyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(2-Fluoro-4-methoxybenzyl)-8-((3-hydroxyazetidin-1-yl)methyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(2,3-Difluoro-4-methoxybenzyl)-8-((dimethylamino)methyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

9-((Diisopropylamino)methyl)-6-(4-Methoxybenzyl)thieno[3,2-c][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-10-((tetrahydro-2H-pyran-4-yl)methyl)-8,9,10,11-tetrahydropyrido[3',4':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-6,8,9,10,11,12-hexahydro-5H-[1,2,4]triazolo[1",5":1',6']pyrimido[5',4':4,5]thieno[2,3-c]azepin-5-one;

11,11-Difluoro-9-isobutyl-6-(4-Methoxybenzyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

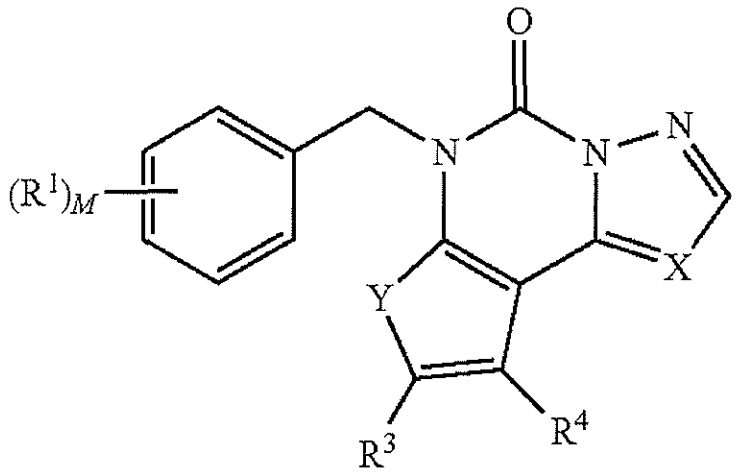
11,11-Difluoro-6-(4-Methoxybenzyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one; and

6-(4-Methoxybenzyl)-8,9,10,11-tetrahydropyrido[3',2':4,5]thieno[3,2-c][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one.

CLAIMS

1. A chemical entity of Formula I:

(I)



wherein:

X is —CH— or —N—;

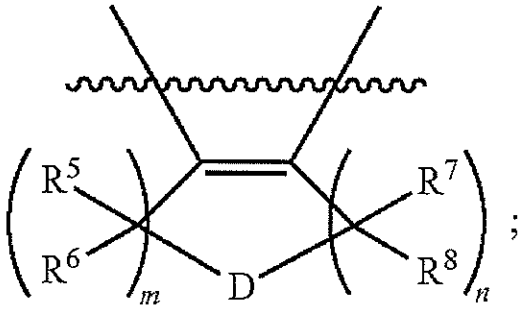
Y is —O— or —S—;

M is 0-5;

R^1 is each independently selected from the group consisting of: H, halo, —CN, —C_{1-6}alkyl, —C_{1-6}haloalkyl, —C_{1-6}thioalkyl, —C_{1-6}alkoxy, —C_{1-6}haloalkoxy, —SO_2C_{1-6}alkyl, aryl, heteroaryl, and heterocycloalkyl;

R^3 and R^4 are each independently selected from the group consisting of —H, halo, —C_{1-6}alkyl, —C_{1-6}haloalkyl, —CH_2OH, —C_{1-6}alkoxy, —C_{1-6}haloalkoxy, aryl, optionally substituted 5 or 6 membered heteroaryl, —(C_1-C_6alkyl)aryl, —(C_1-C_6 alkyl)heteroaryl, and —$(CR^{10}R^{11})_{1-3}NR^{12}R^{13}$;

or R^3 and R^4 taken together with the carbons to which they are attached form a saturated or unsaturated monocylic ring system, having the following structure:



or R^3 is ((2R,6S)-2,6-dimethylmorpholin-4-yl)methyl, ((2S,6R)-2,6-dimethylmorpholin-4-yl)methyl, (1,4-oxazepan-4-yl)methyl, (1,4-oxazepan-4-ylmethyl), (2,2-dimethylmorpholino)methyl, (3-hydroxyazetidin-1-yl) methyl, (4-(methylsulfonyl)piperazin-1-yl)methyl, (4-acetyl-1,4-diazepan-1-yl)methyl, (4-acetylpiperazin-1-yl)methyl, (4-ethyl-3-oxopiperazin-1-yl) methyl, (4-methylpiperazin-1-yl)methyl, [3-(2-fluorophenoxy)azetidin-1-yl]methyl, [4-(2-fluorophenyl) piperazin-1-yl]methyl, [4-(3-fluorophenyl)piperazin-1-yl]methyl, [4-(4-fluorophenyl)piperazin-1-yl]methyl, [4-(morpholin-4-yl)piperidin-1-yl]methyl, [4-(pyridin-4-yloxy)piperidin-1-yl]methyl, {1,1-difluoro-5-azaspiro [2.4]heptan-5-yl}methyl, 2-oxa-7-azaspiro [3.5]nonan-7-ylmethyl, 4-thiomorpholine-1,1-dione, 7-oxa-2-azaspiro[3.5]nonan-2-ylmethyl, or morpholinomethyl, and R^4 is H or —CH_3;

or R^3 and R^4 taken together with the carbons to which they

are attached form a six member monocyclic ring system, wherein D is —N(R^9)—, and R^9 is H, —C_{1-6}alkyl, —C_{1-6}haloalkyl, —SO_2CH_3, benzyl, benzoyl, (3-chlorobenzyl), (4-chlorobenzyl), (3-chlorobenzoyl), (4-chlorobenzoyl), (2-fluorobenzyl), (4-fluorobenzyl), (pyridin-2-yl), (pyridin-2-ylmethyl), (pyridin-4-ylmethyl), (pyrimidin-2-ylmethyl), (pyrimidin-4-ylmethyl), (pyrazine-2-carbonyl), cyclopropylmethyl, (cyclopropanecarbonyl), (2,2-difluorocyclopropanecarbonyl), (tetrahydro-2H-pyran-4-yl)methyl, (oxetan-3-yl), (3-methyloxetan-3-yl) methyl, (tetrahydrofuran-3-yl)methyl, (tetrahydrofuran-3-carbonyl), (tetrahydro-2H-pyran-2-yl)methyl, (tetrahydro-2H-pyran-4-yl)methyl, (tetrahydro-2H-pyran-3-yl)methyl, (1-methyl-1H-imidazol-2-yl)methyl, (4-methylthiazol-5-yl)methyl, (5-methyl-1,3,4-thiadiazol-2-yl)methyl, (1,1-dioxidothietan-3-yl), (1,4-dioxan-2-yl)methyl), (5-oxotetrahydrofuran-2-yl) methyl, (1-methylpyrrolidine-3-carbonyl), (pyrrolidine-3-carbonyl), or (morpholin-2-ylmethyl);

D is —O—, —N(R^9)—, or a bond;

m and n are each independently 0-4, with the proviso that the sum of m and n is 1-5 when D is —O—, —N(R^9)—, or is 2-6 when D is a bond; and with the proviso that when D is a bond, R^1 is not —Cl in the para

position;

R^5, R^6, R^7, R^8, are each independently selected from the group consisting of: —H, —F, —C_{1-6}alkyl, —C_{1-6}haloalkyl, —OH, —C_{1-6}alkoxy, —C_{1-6}haloalkoxy;

R^9 is selected from the group consisting of —H, —C_{1-6}alkyl, —C_{1-6}thioalkyl, —C_{1-6}haloalkyl, —CO_2C_{1-6}alkyl, —SO_2(C_{1-6}alkyl), —C_{1-6}alkyl(aryl), —C_{1-6}alkyl(C_{3-6}cycloalkyl), —C_{1-6}alkyl(heterocycloalkyl), —C_{1-6}alkyl(heteroaryl), heteroaryl, —CO(aryl), —CO(heteroaryl), —CO(heterocycloalkyl), —CO(C_{3-6}cycloalkyl), wherein each aryl, cycloalkyl, heterocycloalkyl, heteroaryl are optionally unsubstituted or substituted with a member each independently selected from the group consisting of —H, —Cl, —F, and —CH_3;

R^{10} and R^{11} are each independently selected from the group consisting of —H, —F, —C_{1-6}alkyl, —CF_3 and —OH;

R^{12} and R^{13} are each independently selected from the group consisting of —H, —C_{1-6} alkyl, —C_{3-6}cycloalkyl, —C_{1-6}alkyl(aryl), —C_{1-6}alkyl(heteroaryl), —C_{1-6}alkyl(heterocycloalkyl), —$CH_2CON(C_{1-6}$ alkyl)$_2$;

or R^{12} is H or —C_{1-6}alkyl and R^{13} is —CH_3, —$CH_2CON(CH_3)_2$, cyclopropyl, benzyl, 3-pyridyl, oxan-4-ylm-

ethyl, 2,2-dimethyloxan-4-yl, (3-methyloxetan-3-yl) methyl, (tetrahydrofuran-2-yl)methyl or (tetrahydrofuran-3-yl)methyl;

or R^{12} is H, —C_{1-6}alkyl, R^{13} is —CH_3, —$CH_2CON(CH_3)_2$, cyclopropyl, benzyl, 3-pyridyl, (tetrahydrofuran-2-yl)methyl, (tetrahydrofuran-3-yl)methyl, oxan-4-ylmethyl, 2,2-dimethyloxan-4-yl or (3-methyloxetan-3-yl)methyl;

or R^{12} and R^{13} are taken together with the nitrogen to which they are attached form a heterocycloalkyl ring, optionally substituted with one or more R^{14}, where each R^{14} is independently selected from the group consisting of —H, —C_{1-6}alkyl, —CH_2OH, —OH, —$COCH_3$, —SO_2CH_3, —O-pyridyl, 2-fluorophenyl, 3-fluorophenyl, 4-fluorophenyl, —O-phenyl, —O-(2-fluorophenyl), -morpholino, 1,1-difluoro-cyclopropyl, or two R^{14} members are taken together to form a —C_{3-6}heterocycloalkyl;

or R^{12} and R^{13} are taken together with the nitrogen to which they are attached to form a heterocycloalkyl ring selected from (2R,6S)-2,6-dimethylmorpholine, (2S, 6R)-2,6-dimethylmorpholine, (3R,5 S)-3,5-dimethylpiperazine, 1,1-difluoro-5-azaspiro[2.4]heptane, 1,4-oxazepane, 2-(methoxymethyl)pyrrolidine, 2,2-dimethylmorpholine, 2,6-dimethylmorpholine, 2-ethylmorpholine, 2-methylmorpholine, 2-oxa-5-azabicyclo[2.2.1]heptane, 3-(2-fluorophenoxy)azetidine, 3,3,4-trimethylpiperazine, 3,4-dimethylpiperazine, 3-hydroxyazetidine, 3-methylmorpholine, 3-oxopiperazine, 4-(2-fluorophenyl)piperazine, 4-(3-fluorophenyl)piperazine, 4-(4-fluorophenyl)piperazine, 4-(methylsulfonyl)piperazine, 4-(morpholin-4-yl)piperidine, 4-(pyridin-4-yloxy)piperidine, 4-acetyl-1,4-diazepane, 4-acetylpiperazine, 4-ethyl-3-oxopiperazine, 4-hydroxypiperidine, 4-isopropylpiperazine, 4-methyl-

piperazine, 4-thiomorpholine-1,1-dione, 8-oxa-3-azabicyclo[3.2.1]octane, isoindoline, morpholine, octahydropyrrolo[1,2-a]pyrazine, piperazine, and pyrrolidine;

wherein the chemical entity is selected from the group consisting of compounds of Formula (I), and pharmaceutically acceptable salts of compounds of Formula (I).

2. The chemical entity of claim **1**, wherein Y is —S—.

3. The chemical entity of claim **1**, wherein M is 1, 2 or 3.

4. The chemical entity of claim **2**, wherein R^1 is —OCH_3.

5. The chemical entity of claim **2**, wherein R^1 is —F, —Cl, —Br, —CF_3, —CN or —CHF_2.

6. The chemical entity of claim **1**, wherein R^3 is H, —Br, —C_{1-6}alkyl, benzyl, 1-methyl-3-(trifluoromethyl)-1H-pyrazol-5-yl and R^4 is H or —CH_3.

7. The chemical entity of claim **1**, wherein R^3 is —$(CR^{10}R^{11})_{1-3}NR^{12}R^{13}$ and R^4 is H or —CH_3.

8. The chemical entity of claim **1**, wherein R^3 is H, —Br, —C_{1-5}alkyl, benzyl, 1-methyl-3-(trifluoromethyl)-1H-pyrazol-5-yl, or —$(CR^{10}R^{11})NR^{12}R^{13}$, where R^{10} and R^1 are each H, R^{12} is H or —C_{1-6}alkyl, R^{13} is —CH_3, —$CH_2CON(CH_3)_2$, cyclopropyl, benzyl, 3-pyridyl, oxan-4-ylmethyl, 2,2-dimethyloxan-4-yl, (3-methyloxetan-3-yl)methyl, (tetrahydrofuran-2-yl)methyl or (tetrahydrofuran-3-yl)methyl and R^4 is H or —CH_3.

9. The chemical entity of claim **1**, wherein R^3 is —$(CR^{10}R^{11})NR^{12}R^{13}$, where R^{10} and R^{11} are each H, R^{12} is H, —C_{1-6}alkyl, R^{13} is —CH_3, —$CH_2CON(CH_3)_2$, cyclopropyl, benzyl, 3-pyridyl, (tetrahydrofuran-2-yl)methyl, (tetrahydrofuran-3-yl)methyl, oxan-4-ylmethyl, 2,2-dimethyloxan-4-yl or (3-methyloxetan-3-yl)methyl and R^4 is H or —CH_3.

10. The chemical entity of claim **1**, wherein R^3 is H or —CH_3 and R^4 is —$(CR^{10}R^{11})_{1-3}NR^{12}R^{13}$.

11. The chemical entity of claim **1**, wherein R^3 is H or —CH_3, R^4 is —$(CR^{10}R^{11})NR^{12}R^{13}$, where R^{10} and R^{11} are each H, R^{12} is H or —C_{1-6}alkyl, and R^{13} is —C_{1-6}alkyl or oxan-4-ylmethyl.

12. The chemical entity of claim **1**, wherein R^3 or R^4 is —$(CR^{10}R^{11})_{1-3}NR^{12}R^{13}$, R^{10} and R^{11} are each independently H, —CH_3, or —OH, and R^{12} and R^{13} are taken together with the nitrogen to which they are attached to form a heterocycloalkyl ring selected from (2R,6 S)-2,6-dimethylmorpholine, (2S,6R)-2,6-dimethylmorpholine, (3R,5S)-3,5-dimethylpiperazine, 1,1-difluoro-5-azaspiro[2.4]heptane, 1,4-oxazepane, 2-(methoxymethyl)pyrrolidine, 2,2-dimethylmorpholine, 2,6-dimethylmorpholine, 2-ethylmorpholine, 2-methylmorpholine, 2-oxa-5-azabicyclo[2.2.1]heptane, 3-(2-fluorophenoxy)azetidine, 3,3,4-trimethylpiperazine, 3,4-dimethylpiperazine, 3-hydroxyazetidine, 3-methylmorpholine, 3-oxopiperazine, 4-(2-fluorophenyl)piperazine, 4-(3-fluorophenyl)piperazine, 4-(4-fluorophenyl)piperazine, 4-(methylsulfonyl)piperazine, 4-(morpholin-4-yl)piperidine, 4-(pyridin-4-yloxy)piperidine, 4-acetyl-1,4-diazepane, 4-acetylpiperazine, 4-ethyl-3-oxopiperazine, 4-hydroxypiperidine, 4-isopropylpiperazine, 4-methyl-piperazine, 4-thiomorpholine-1,1-dione, 8-oxa-3-azabicyclo[3.2.1]octane, isoindoline, morpholine, octahydropyrrolo[1,2-a]pyrazine, piperazine, and pyrrolidine.

13. The chemical entity of claim **1**, wherein R^3 is ((2R, 6S)-2,6-dimethylmorpholin-4-yl)methyl, ((2S,6R)-2,6-dimethylmorpholin-4-yl)methyl, (1,4-oxazepan-4-yl)methyl, (1,4-oxazepan-4-ylmethyl), (2,2-dimethylmorpholino) methyl, (3-hydroxyazetidin-1-yl)methyl, (4-(methylsulfonyl)piperazin-1-yl)methyl, (4-acetyl-1,4-diazepan-1-yl) methyl, (4-acetylpiperazin-1-yl)methyl, (4-ethyl-3-

oxopiperazin-1-yl)methyl, (4-methylpiperazin-1-yl)methyl, [3-(2-fluorophenoxy)azetidin-1-yl]methyl, [4-(2-fluorophenyl)piperazin-1-yl]methyl, [4-(3-fluorophenyl)piperazin-1-yl]methyl, [4-(4-fluorophenyl)piperazin-1-yl]methyl, [4-(morpholin-4-yl)piperidin-1-yl]methyl, [4-(pyridin-4-yloxy)piperidin-1-yl]methyl, {1,1-difluoro-5-azaspiro[2.4]heptan-5-yl}methyl, 2-oxa-7-azaspiro[3.5]nonan-7-ylmethyl, 4-thiomorpholine-1,1-dione, 7-oxa-2-azaspiro[3.5]nonan-2-ylmethyl, or morpholinomethyl, and R^4 is H or $—CH_3$.

14. The chemical entity of claim **1**, wherein R^3 is morpholinomethyl, (2,2-dimethylmorpholino)methyl, 2,6-dimethylmorpholino)methyl, ((2S,6R)-2,6-dimethylmorpholino)methyl, ((2R,6S)-2,6-dimethylmorpholin-4-yl)methyl, (4-(methylsulfonyl)piperazin-1-yl)methyl, 1-hydroxy-2-morpholinoethyl or 2-((2S,6R)-2,6-dimethylmorpholino)-1-hydroxyethyl, and R^4 is H or $—CH_3$.

15. The chemical entity of claim **1**, wherein R^4 is ((2S,6R)-2,6-dimethylmorpholino)methyl, ((2R,6S)-2,6-dimethylmorpholin-4-yl)methyl, [(3-phenoxypyrrolidin-1-yl)methyl], [3-(hydroxymethyl)-3-(2-methylpropyl)piperidin-1-yl]methyl, [ethyl(oxan-4-ylmethyl)amino]methyl, [methyl(oxan-4-ylmethyl)amino]methyl, [(oxan-4-ylmethyl)amino]methyl, or [bis(propan-2-yl)amino]methyl.

16. The chemical entity of claim **1**, wherein R^3 and R^4 taken together with the carbons to which they are attached form a six member monocyclic ring system, wherein D is —O—, and m is 1 and n is 2.

17. The chemical entity of claim **1**, wherein R^3 and R^4 taken together with the carbons to which they are attached form a six member monocyclic ring system, wherein D is $—N(R^9)—$, and m is 0, 1, or 2 and n is 1, 2 or 3; with the proviso that the sum of m and n is 1-5.

18. The chemical entity of claim **1**, wherein R^3 and R^4 taken together with the carbons to which they are attached form a six member monocyclic ring system, wherein D is a bond and m and n are 2.

19. The chemical entity of claim **1**, wherein R^5, R^6, R^7, R^8, are each independently —H, —F, or —CH_3.

20. The chemical entity of claim **1**, wherein R^3 and R^4 taken together with the carbons to which they are attached form a six member monocyclic ring system, wherein D is —N(R^9)—, and R^9 is H, —$C_{1\text{-}6}$alkyl, —$C_{1\text{-}6}$haloalkyl, —SO_2CH_3, benzyl, benzoyl, (3-chlorobenzyl), (4-chlorobenzyl), (3-chlorobenzoyl), (4-chlorobenzoyl), (2-fluorobenzyl), (4-fluorobenzyl), (pyridin-2-yl), (pyridin-2-ylmethyl), (pyridin-4-ylmethyl), (pyrimidin-2-ylmethyl), (pyrimidin-4-ylmethyl), (pyrazine-2-carbonyl), cyclopropylmethyl, (cyclopropanecarbonyl), (2,2-difluorocyclopropanecarbonyl), (oxetan-3-yl), (3-methyloxetan-3-yl)methyl, (tetrahydrofuran-3-yl)methyl, (tetrahydrofuran-3-carbonyl), (tetrahydro-2H-pyran-2-yl)methyl, (tetrahydro-2H-pyran-4-yl)methyl, (tetrahydro-2H-pyran-3-yl)methyl, (1-methyl-1H-imidazol-2-yl)methyl, (4-methylthiazol-5-yl)methyl, (5-methyl-1,3,4-thiadiazol-2-yl)methyl, (1,1-dioxidothietan-3-yl), (1,4-dioxan-2-yl)methyl), (5-oxotetrahydrofuran-2-yl)methyl, (1-methylpyrrolidine-3-carbonyl), (pyrrolidine-3-carbonyl), or (morpholin-2-ylmethyl).

21. The chemical entity of claim **1**, wherein R^3 and R^4 taken together with the carbons to which they are attached form a six member monocyclic ring system, wherein each R^5, R^6, R^7, R^8, are independently —H and —F; D is —N(R^9)—, and R^9 is (tetrahydrofuran-3-yl)methyl or (tetrahydro-2H-pyran-4-yl)methyl.

22. A compound selected from the group consisting of:

6-(2-Chlorobenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]py-

rimidin-5(6H)-one;
6-(3-Chlorobenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;
6-(4-Chlorobenzyl)-9-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;
6-([1,1'-Biphenyl]-4-ylmethyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;
6-(4-Chlorobenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;
6-Benzyl-9-methylthieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;
6-([1,1'-Biphenyl]-4-ylmethyl)-9-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;
8-Benzyl-6-(2-chlorobenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;
8-Benzyl-6-(3-chlorobenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;
6-(2-Chlorobenzyl)-9-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;
6-(3-Chlorobenzyl)-9-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;
6-Benzyl-8-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;
6-(2-Chlorobenzyl)-8-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;
6-([1,1'-Biphenyl]-4-ylmethyl)-8-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;
6-(4-Chlorobenzyl)-8-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;
6-(3-Chlorobenzyl)-8-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;
6, 8-Dibenzylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-([1,1'-Biphenyl]-4-ylmethyl)-8-benzylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(2-Chlorobenzyl)-8-isopentylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(3-Chlorobenzyl)-8-isopentylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-([1,1'-Biphenyl]-4-ylmethyl)-8-isopentylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-Benzyl-6-(4-chlorobenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Chlorobenzyl)-8-isopentylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-Benzylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-Benzyl-8-isopentylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Chlorobenzyl)-8,9-dimethylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((1,4-Oxazepan-4-yl)methyl)-6-(4-methoxybenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((Dimethylamino)methyl)-6-(4-methoxybenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-8-(morpholinomethyl)thieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-8-((4-methylpiperazin-1-yl)methyl)thieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-(((2S,6R)-2,6-Dimethylmorpholino)methyl)-6-(4-methoxybenzyl)thieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((4-Ethyl-3-oxopiperazin-1-yl)methyl)-6-(4-methoxybenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-8-((4-(methylsulfonyl)piperazin-1-yl)methyl)thieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((2,2-dimethylmorpholino)methyl)-6-(4-Methoxybenzyl)thieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-(2-oxa-5-azabicyclo [2.2.1]heptan-5-ylmethyl)-6-(4-Methoxybenzyl)thieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-(7-oxa-2-azaspiro [3.5]nonan-2-ylmethyl)-6-(4-Methoxybenzyl)thieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-(2-Oxa-7-azaspiro [3.5]nonan-7-ylmethyl)-6-(4-methoxybenzyl)thieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

7-((6-(4-Methoxybenzyl)-5-oxo-5,6-dihydrothieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-8-yl)methyl)tetrahydro-1H-oxazolo[3,4-a]pyrazin-3 (5H)-one;

6-(4-Methoxybenzyl)-8-(1-methyl-3-(trifluoromethyl)-1H-pyrazol-5-yl)thieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-(3,5-Dimethylisoxazol-4-yl)-6-(4-methoxybenzyl) thieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-methyl-8-(pyrrolidin-1-ylmethyl)thieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-methyl-8-(morpholinomethyl) thieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((Dimethylamino)methyl)-6-(4-methoxybenzyl)-9-methylthieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5 (6H)-one;

8-((Cyclopropyl(methyl)amino)methyl)-6-(4-methoxybenzyl)-9-methylthieno [3,2-e][1,2,4]triazolo[1,5-c] pyrimidin-5(6H)-one;

8-((4-Hydroxypiperidin-1-yl)methyl)-6-(4-methoxybenzyl)-9-methylthieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((Benzyl(2-hydroxyethyl)amino)methyl)-6-(4-methoxybenzyl)-9-methylthieno [3,2-e][1,2,4]triazolo [1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-methyl-8-(piperazin-1-ylmethyl) thieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-methyl-8-((((3-methyloxetan-3-yl)methyl)amino)methyl)thieno [3,2-e][1,2,4]triazolo [1,5-c]pyrimidin-5(6H)-one;

8-((4-Acetylpiperazin-1-yl)methyl)-6-(4-methoxybenzyl)-9-methylthieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-methyl-8-(((pyridin-3-ylmethyl) amino)methyl)thieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-methyl-8-((3-oxopiperazin-1-yl) methyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5 (6H)-one;

6-(4-Methoxybenzyl)-9-methyl-8-((methyl((tetrahydrofuran-2-yl)methyl)amino)methyl)thieno[3,2-e][1,2,4] triazolo[1,5-c]pyrimidin-5(6H)-one;

8-(((2S,6R)-2,6-Dimethylmorpholino)methyl)-6-(4-methoxybenzyl)-9-methylthieno [3,2-e][1,2,4]triazolo [1,5-c]pyrimidin-5(6H)-one;

8-(Isoindolin-2-ylmethyl)-6-(4-methoxybenzyl)-9-methylthieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((Cyclopropylamino)methyl)-6-(4-methoxybenzyl)-9-methylthieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5 (6H)-one;

(S)-6-(4-Methoxybenzyl)-8-((2-(methoxymethyl)pyrrolidin-1-yl)methyl)-9-methylthieno[3,2-e][1,2,4]triazolo [1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-methyl-8-((methyl((tetrahydrofuran-3-yl)methyl)amino)methyl)thieno[3,2-e][1,2,4] triazolo[1,5-c]pyrimidin-5(6H)-one;

2-(((6-(4-Methoxybenzyl)-9-methyl-5-oxo-5,6-dihydrothieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-8-yl) methyl)(methyl)amino)-N,N-dimethylacetamide;

8-((1,4-Oxazepan-4-yl)methyl)-6-(4-methoxybenzyl)-9-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5 (6H)-one;

6-(4-Methoxybenzyl)-9-methyl-8-((4-methylpiperazin-1-yl)methyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-methyl-8-((4-(methylsulfonyl) piperazin-1-yl)methyl)thieno [3,2-e][1,2,4]triazolo[1, 5-c]pyrimidin-5(6H)-one;

8-((4-Isopropylpiperazin-1-yl)methyl)-6-(4-methoxybenzyl)-9-methylthieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-(2-Oxa-5-azabicyclo [2.2.1]heptan-5-ylmethyl)-6-(4-methoxybenzyl)-9-methylthieno [3,2-e][1,2,4]triazolo [1,5-c]pyrimidin-5(6H)-one;

8-((4-Ethyl-3-oxopiperazin-1-yl)methyl)-6-(4-methoxybenzyl)-9-methylthieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-(8-Oxa-3-azabicyclo [3.2.1]octan-3-ylmethyl)-6-(4-methoxybenzyl)-9-methylthieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((2-Ethylmorpholino)methyl)-6-(4-methoxybenzyl)-9-methylthieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((2,2-Dimethylmorpholino)methyl)-6-(4-methoxybenzyl)-9-methylthieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-methyl-8-((2-methylmorpholino)methyl)thieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-methyl-8-((3-methylmorpholino)methyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-(((3R,5 S)-3,5-Dimethylpiperazin-1-yl)methyl)-6-(4-methoxybenzyl)-9-methylthieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((3,4-Dimethylpiperazin-1-yl)methyl)-6-(4-methoxybenzyl)-9-methylthieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-methyl-8-((3,3,4-trimethylpiperazin-1-yl)methyl)thieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

(S)-8-((Hexahydropyrrolo[1,2-a]pyrazin-2(1H)-yl)methyl)-6-(4-methoxybenzyl)-9-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-Bromo-6-(4-methoxybenzyl)-9-methylthieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-(Hydroxymethyl)-6-(4-methoxybenzyl)-9-methylthieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

9-(((2S,6R)-2,6-Dimethylmorpholino)methyl)-6-(4-methoxybenzyl)thieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Chlorobenzyl)-8,9-dimethylfuro[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

tert-Butyl 6-(4-methoxybenzyl)-5-oxo-5,6,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidine-9(8H)-carboxylate;

6-(2-Chlorobenzyl)-8,9,10,11-tetrahydrobenzo[4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

4-(4-Methoxybenzyl)-2-(morpholinomethyl)pyrazolo[1,5-c]thieno [3,2-e]pyrimidin-5(4H)-one;

6-(4-Chlorobenzyl)-10,10-dimethyl-6, 8,10,11-tetrahydro-5H-pyrano[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5-one;

6-Benzyl-8,9,10,11-tetrahydrobenzo[4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(3-Chlorobenzyl)-8,9,10,11-tetrahydrobenzo[4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-([1,1'-Biphenyl]-4-ylmethyl)-8,9,10,11-tetrahydrobenzo[4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Chlorobenzyl)-6,8,10,11-tetrahydro-5H-pyrano[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5-one;

6-(4-Methylbenzyl)-6,8,10,11-tetrahydro-5H-pyrano[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5-one;

6-(4-(Trifluoromethyl)benzyl)-6, 8,10,11-tetrahydro-5H-pyrano[4',3':4,5]thieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5-one;

6-(4-Methoxybenzyl)-6,8,10,11-tetrahydro-5H-pyrano [4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5-one;

6-(3,4-Dichlorobenzyl)-6,8,10,11-tetrahydro-5H-pyrano [4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5-one;

6-(4-Fluorobenzyl)-6,8,10,11-tetrahydro-5H-pyrano[4', 3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5-one;

6-(4-Chloro-3-fluorobenzyl)-6, 8,10,11-tetrahydro-5H-pyrano[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5-one;

6-(4-Chloro-2-fluorobenzyl)-6, 8,10,11-tetrahydro-5H-pyrano[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5-one;

6-(3-Fluoro-4-methoxybenzyl)-6, 8,10,11-tetrahydro-5H-pyrano[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5-one;

6-(4-(Trifluoromethoxy)benzyl)-6, 8,10,11-tetrahydro-5H-pyrano[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c] pyrimidin-5-one;

6-(4-Ethoxybenzyl)-6,8,10,11-tetrahydro-5H-pyrano[4', 3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5-one;

6-(3,5-Difluoro-4-methoxybenzyl)-6,8,10,11-tetrahydro-5H-pyrano[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c] pyrimidin-5-one;

6-(4-Chlorobenzyl)-8,9,10,11-tetrahydropyrido[4',3':4,5] thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(3,4-Dimethoxybenzyl)-8,9,10,11-tetrahydropyrido[3', 2':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5 (6H)-one;

6-(4-Chlorobenzyl)-9-methyl-8,9,10,11-tetrahydropyrido [4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

9-Benzyl-6-(4-chlorobenzyl)-8,9,10,11-tetrahydropyrido [4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Chlorobenzyl)-9-(cyclopropylmethyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

2-(((2 S, 6R)-2,6-Dimethylmorpholino)methyl)-4-(4-methoxybenzyl)pyrazolo[1,5-c]thieno [3,2-e]pyrimidin-5(4H)-one;

6-(4-Chlorobenzyl)-9-((tetrahydro-2H-pyran-4-yl) methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Chlorobenzyl)-9-(oxetan-3-yl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c] pyrimidin-5(6H)-one;

6-(4-Chlorobenzyl)-9-(2,2,2-trifluoroethyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-((5-methyl-1,3,4-thiadiazol-2-yl) methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-((tetrahydro-2H-pyran-4-yl) methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

9-(Cyclopropylmethyl)-6-(4-methoxybenzyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo [1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-((3-methyloxetan-3-yl)methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-(3-(methylthio)propyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-((tetrahydrofuran-3-yl)methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

9-((2,2-Difluorobenzo [d][1,3]dioxol-5-yl)methyl)-6-(4-methoxybenzyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-neopentyl-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-(pyrimidin-2-ylmethyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-((tetrahydro-2H-pyran-2-yl)methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-(3-(methylsulfonyl)propyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-(pyrimidin-4-ylmethyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-(pyridin-2-ylmethyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-(pyridin-4-ylmethyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-((1-methyl-1H-imidazol-2-yl)methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,

2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-((4-methylthiazol-5-yl)methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

9-(1,1-Dioxidothietan-3-yl)-6-(4-methoxybenzyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

9-((1,4-Dioxan-2-yl)methyl)-6-(4-methoxybenzyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-((5-oxotetrahydrofuran-2-yl)methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

9-(4-Fluorobenzyl)-6-(4-methoxybenzyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

9-(2-Fluorobenzyl)-6-(4-methoxybenzyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Chloro-2-fluorobenzyl)-9-((tetrahydro-2H-pyran-4-yl)methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Chloro-2-fluorobenzyl)-9-(pyridin-2-ylmethyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Chloro-2-fluorobenzyl)-9-((1-methyl-1H-imidazol-2-yl)methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Chloro-2-fluorobenzyl)-9-(pyrimidin-2-ylmethyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Chloro-2-fluorobenzyl)-9-((tetrahydrofuran-3-yl) methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3, 2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-((tetrahydro-2H-pyran-3-yl) methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3, 2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

11,11-Difluoro-6-(4-methoxybenzyl)-9-((tetrahydro-2H-pyran-4-yl)methyl)-8,9,10,11-tetrahydropyrido[4',3':4, 5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

11,11-Difluoro-6-(4-methoxybenzyl)-9-((tetrahydro-2H-pyran-3-yl)methyl)-8,9,10,11-tetrahydropyrido[4',3':4, 5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(2-Fluoro-4-methoxybenzyl)-9-(pyrimidin-2-ylmethyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(2-Fluoro-4-methoxybenzyl)-9-((1-methyl-1H-imidazol-2-yl)methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5] thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(2-Fluoro-4-methoxybenzyl)-9-(pyridin-2-ylmethyl)-8, 9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4] triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(2-Fluoro-4-methoxybenzyl)-9-((tetrahydrofuran-3-yl) methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3, 2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(2-Fluoro-4-methoxybenzyl)-9-((tetrahydro-2H-pyran-4-yl)methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5] thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(2-Fluoro-4-methoxybenzyl)-9-((tetrahydro-2H-pyran-3-yl)methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5] thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-((tetrahydrofuran-3-yl)methyl)-6,8,9,10,11,12-hexahydro-5H-[1,2,4]triazolo[1",5":1',6']pyrimido[5',4':4,5]thieno[2,3-c]azepin-5-one;

6-(4-Methoxybenzyl)-9-((1-methyl-1H-imidazol-2-yl)methyl)-6,8,9,10,11,12-hexahydro-5H-[1,2,4]triazolo[1",5":1',6']pyrimido[5',4':4,5]thieno[2,3-c]azepin-5-one;

6-(4-Methoxybenzyl)-9-(pyrimidin-2-ylmethyl)-6,8,9,10,11,12-hexahydro-5H-[1,2,4]triazolo[1",5":1',6']pyrimido[5',4':4,5]thieno[2,3-c]azepin-5-one;

6-(4-Methoxybenzyl)-9-(pyridin-2-ylmethyl)-6,8,9,10,11,12-hexahydro-5H-[1,2,4]triazolo[1",5":1',6']pyrimido[5',4':4,5]thieno[2,3-c]azepin-5-one;

6-(4-Methoxybenzyl)-9-((tetrahydro-2H-pyran-4-yl)methyl)-6,8,9,10,11,12-hexahydro-5H-[1,2,4]triazolo[1",5":1',6']pyrimido[5',4':4,5]thieno[2,3-c]azepin-5-one;

6-(4-Methoxybenzyl)-8-((tetrahydro-2H-pyran-4-yl)methyl)-8,9,10,11-tetrahydropyrido[3',2':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-8-((tetrahydro-2H-pyran-3-yl)methyl)-8,9,10,11-tetrahydropyrido[3',2':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-8-((tetrahydrofuran-3-yl)methyl)-8,9,10,11-tetrahydropyrido[3',2':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

9-(1,1-Difluoropropan-2-yl)-6-(4-Methoxybenzyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-(4-Chlorobenzyl)-6-(4-Methoxybenzyl)-8,9,10,11-tetrahydropyrido[3',2':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-(4-Chlorobenzyl)-6-(3,4-dimethoxybenzyl)-8,9,10,11-tetrahydropyrido[3',2':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-Benzyl-6-(3,4-dimethoxybenzyl)-8,9,10,11-tetrahydropyrido[3',2':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-(3-Chlorobenzyl)-6-(3,4-dimethoxybenzyl)-8,9,10,11-tetrahydropyrido[3',2':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

11,11-Difluoro-6-(2-fluoro-4-methoxybenzyl)-9-((tetrahydro-2H-pyran-4-yl)methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Chlorobenzyl)-9-(pyrazine-2-carbonyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Chlorobenzyl)-9-(cyclopropanecarbonyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

9-(Cyclopropanecarbonyl)-6-(4-Methoxybenzyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

9-(2,2-Difluorocyclopropanecarbonyl)-6-(4-Methoxybenzyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-(tetrahydrofuran-3-carbonyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-(methylsulfonyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-(1-methylpyrrolidine-3-carbonyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Chloro-2-fluorobenzyl)-9-(cyclopropanecarbonyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Chloro-2-fluorobenzyl)-9-(tetrahydrofuran-3-carbonyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

11,11-Difluoro-6-(4-Methoxybenzyl)-9-(tetrahydrofuran-3-carbonyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(2-Fluoro-4-methoxybenzyl)-9-(tetrahydrofuran-3-carbonyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(2-Fluoro-4-methoxybenzyl)-9-(tetrahydrofuran-3-carbonyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

9-(Cyclopropanecarbonyl)-6-(2-fluoro-4-methoxybenzyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

(R)-6-(4-Methoxybenzyl)-9-(tetrahydrofuran-3-carbonyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-(tetrahydrofuran-3-carbonyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-(tetrahydrofuran-3-carbonyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

(R)-6-(4-Methoxybenzyl)-9-(tetrahydrofuran-3-carbonyl)-6,8,9,10,11,12-hexahydro-5H-[1,2,4]triazolo[1",5":1',6']pyrimido[5',4':4,5]thieno[2,3-c]azepin-5-one;

9-(Cyclopropanecarbonyl)-6-(4-Methoxybenzyl)-6,8,9,10,11,12-hexahydro-5H-[1,2,4]triazolo[1",5":1',6']pyrimido[5',4':4,5]thieno[2,3-c]azepin-5-one;

8-(Cyclopropanecarbonyl)-6-(4-Methoxybenzyl)-8,9,10,11-tetrahydropyrido[3',2':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-8-(tetrahydrofuran-3-carbonyl)-8,9,10,11-tetrahydropyrido[3',2':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-Benzoyl-6-(3,4-dimethoxybenzyl)-8,9,10,11-tetrahydropyrido[3',2':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-(3-Chlorobenzoyl)-6-(3,4-dimethoxybenzyl)-8,9,10,11-tetrahydropyrido[3',2':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-(4-Chlorobenzoyl)-6-(3,4-dimethoxybenzyl)-8,9,10,11-tetrahydropyrido[3',2':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-(pyridin-2-yl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-(morpholin-2-ylmethyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-(pyrrolidine-3-carbonyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-8,9,10,11-tetrahydropyrido[3',4':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-(piperidin-4-ylmethyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-8-((4-(pyridin-4-yloxy)piperidin-1-yl)methyl)thieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((4-(2-Fluorophenyl)piperazin-1-yl)methyl)-6-(4-Methoxybenzyl)thieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((4-(3-Fluorophenyl)piperazin-1-yl)methyl)-6-(4-Methoxybenzyl)thieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((4-(4-Fluorophenyl)piperazin-1-yl)methyl)-6-(4-Methoxybenzyl)thieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-((3-phenoxypyrrolidin-1-yl) methyl)thieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5 (6H)-one;

8-((3-(2-Fluorophenoxy)azetidin-1-yl)methyl)-6-(4-Methoxybenzyl)thieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-8-((4-morpholinopiperidin-1-yl) methyl)thieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5 (6H)-one;

8-((1,1-Difluoro-5-azaspiro[2.4]heptan-5-yl)methyl)-6-(4-Methoxybenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c] pyrimidin-5(6H)-one;

8-((4-Acetyl-1,4-diazepan-1-yl)methyl)-6-(4-Methoxybenzyl)thieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5 (6H)-one;

8-((1,4-Oxazepan-4-yl)methyl)-6-(2,3-difluoro-4-methoxybenzyl)thieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

9-((3-(Hydroxymethyl)-3-isobutylpiperidin-1-yl) methyl)-6-(4-Methoxybenzyl)thieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-(((2,2-Dimethyltetrahydro-2H-pyran-4-yl)(ethyl) amino)methyl)-6-(4-Methoxybenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

9-((Ethyl((tetrahydro-2H-pyran-4-yl)methyl)amino) methyl)-6-(4-Methoxybenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((Ethyl((tetrahydro-2H-pyran-4-yl)methyl)amino) methyl)-6-(4-Methoxybenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-((methyl((tetrahydro-2H-pyran-4-yl)methyl)amino)methyl)thieno[3,2-e][1,2,4]triazolo [1,5-c]pyrimidin-5(6H)-one;

6-(2,3-Difluoro-4-methoxybenzyl)-8-(((2R,6S)-2,6-dimethylmorpholino)methyl)thieno[3,2-e][1,2,4]triazolo [1,5-c]pyrimidin-5(6H)-one;

8-(((2R,6S)-2,6-Dimethylmorpholino)methyl)-6-(3-fluoro-4-methoxybenzyl)thieno[3,2-e][1,2,4]triazolo [1,5-c]pyrimidin-5(6H)-one;

8-(((2R,6S)-2,6-Dimethylmorpholino)methyl)-6-(2-fluoro-4-methoxybenzyl)thieno [3,2-e][1,2,4]triazolo [1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-((((tetrahydro-2H-pyran-4-yl) methyl)amino)methyl)thieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-8-((methyl(tetrahydro-2H-pyran-4-yl)amino)methyl)thieno [3,2-e][1,2,4]triazolo[1,5-c] pyrimidin-5(6H)-one;

6-(3-Chloro-4-fluorobenzyl)-8-(((2R,6S)-2,6-dimethylmorpholino)methyl)thieno [3,2-e][1,2,4]triazolo[1,5-c] pyrimidin-5(6H)-one;

8-((1,1-Dioxidothiomorpholino)methyl)-6-(4-Methoxybenzyl)thieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(3-Fluoro-4-methoxybenzyl)-8-(morpholinomethyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(2-Fluoro-4-methoxybenzyl)-8-(morpholinomethyl)thieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(3-Chloro-4-fluorobenzyl)-8-(morpholinomethyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(2,3-Difluoro-4-methoxybenzyl)-8-((methyl((3-methyloxetan-3-yl)methyl)amino)methyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-8-((((3-methyloxetan-3-yl)methyl)amino)methyl)thieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(2,3-Difluoro-4-methoxybenzyl)-8-((3-hydroxyazetidin-1-yl)methyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(2-Fluoro-4-methoxybenzyl)-8-((3-hydroxyazetidin-1-yl)methyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(2,3-Difluoro-4-methoxybenzyl)-8-((dimethylamino)methyl)thieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

9-((Diisopropylamino)methyl)-6-(4-Methoxybenzyl)thieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-10-((tetrahydro-2H-pyran-4-yl)methyl)-8,9,10,11-tetrahydropyrido[3',4':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-6,8,9,10,11,12-hexahydro-5H-[1,2,4]triazolo[1",5":1',6']pyrimido[5',4':4,5]thieno[2,3-c]azepin-5-one;

11,11-Difluoro-9-isobutyl-6-(4-Methoxybenzyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

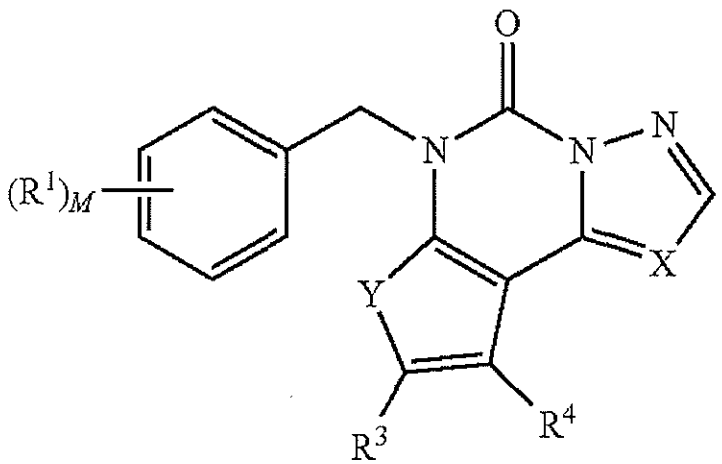
11,11-Difluoro-6-(4-Methoxybenzyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-8,9,10,11-tetrahydropyrido[3',2':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

and pharmaceutically acceptable salts thereof.

23. A pharmaceutical composition comprising an effective amount of a chemical entity of Formula (I):

(I)



wherein:

X is —CH— or —N—;

Y is —O— or —S—;

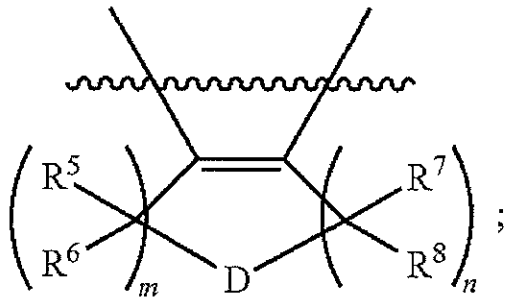
M is 0-5;

R^1 is each independently selected from the group consist-

ing of H, halo, —CN, —C_{1-6}alkyl, —C_{1-6}haloalkyl, —C_{1-6}thioalkyl, —C_{1-6}alkoxy, —C_{1-6}haloalkoxy, —SO_2C_{1-6}alkyl, aryl, heteroaryl, and heterocycloalkyl;

R^3 and R^4 are each independently selected from the group consisting of —H, halo, —C_{1-6}alkyl, —C_{1-6}haloalkyl, —CH_2OH, —C_{1-6}alkoxy, —C_{1-6}haloalkoxy, aryl, optionally substituted 5 or 6 membered heteroaryl, —(C_1-C_6alkyl)aryl, —(C_1-C_6 alkyl)heteroaryl, and —$(CR^{10}R^{11})_{13}NR^{12}R^{13}$;

or R^3 and R^4 taken together with the carbons to which they are attached form a saturated or unsaturated monocylic ring system, having the following structure:



;

D is —O—, —N(R^9)—, or a bond;

m and n are each independently 0-4, with the proviso that the sum of m and n is 1-5 when D is —O—, —N(R^9)—, or is 2-6 when D is a bond; and with the proviso that when D is a bond, R^1 is not —Cl in the para position;

R^5, R^6, R^7, R^8, are each independently selected from the group consisting of —H, —F, —C_{1-6}alkyl, —C_{1-6}haloalkyl, —OH, —C_{1-6}alkoxy, —C_{1-6}haloalkoxy;

R^9 is selected from the group consisting of —H, —C_{1-6}alkyl, —C_{1-6}thioalkyl, —C_{1-6}haloalkyl, —CO_2C_{1-6}alkyl, —SO_2(C_{1-6}alkyl), —C_{1-6}alkyl(aryl), —C_{1-6}alkyl(C_{3-6}cycloalkyl), —C_{1-6}alkyl(heterocy-

cloalkyl), —C_{1-6}alkyl(heteroaryl), heteroaryl, —CO(aryl), —CO(heteroaryl), —CO(heterocycloalkyl), —CO(C_{3-6}cycloalkyl), wherein each aryl, cycloalkyl, heterocycloalkyl, heteroaryl are optionally unsubstituted or substituted with a member each independently selected from the group consisting of —H, —Cl, —F, and —CH_3;

R^{10} and R^{11} are each independently selected from the group consisting of —H, —F, —C_{1-6}alkyl, —CF_3, and —OH;

R^{12} and R^{13} are each independently selected from the group consisting of —H, —C_{1-6} alkyl, —C_{3-6}cycloalkyl, —C_{1-6}alkyl(aryl), —C_{1-6}alkyl(heteroaryl), —C_{1-6}alkyl(heterocycloalkyl), —$CH_2CON(C_{1-6}$ alkyl$)_2$;

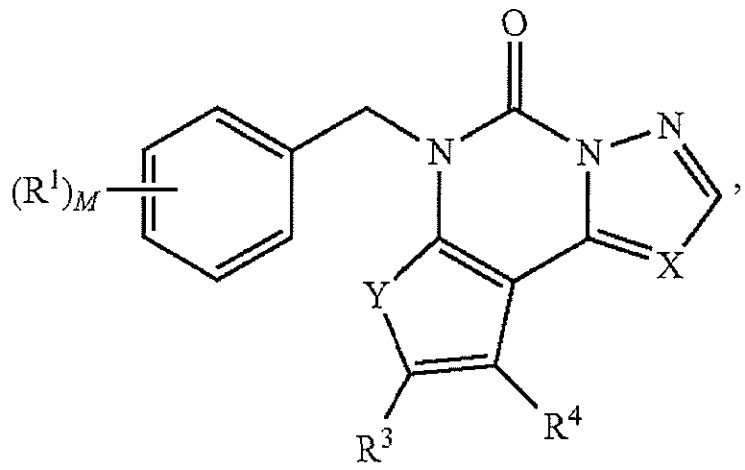
or R^{12} and R^{13} are taken together with the nitrogen to which they are attached form a heterocycloalkyl ring, optionally substituted with one or more R^{14}, where each R^{14} is independently selected from the group consisting of —H, —C_{1-6}alkyl, —CH_2OH, —OH, —$COCH_3$, —SO_2CH_3, —O-pyridyl, 2-fluorophenyl, 3-fluorophenyl, 4-fluorophenyl, —O-phenyl, —O-(2-fluorophenyl), -morpholino, 1,1-difluoro-cyclopropyl, or two R^{14} members are taken together to form a —C_{3-6}heterocycloalkyl; and

wherein the chemical entity is selected from the group consisting of compounds of Formula (I), and pharmaceutically acceptable salts of compounds of Formula (I).

24. A pharmaceutical composition comprising an effective amount of a compound of claim **22**; and a pharmaceutically acceptable excipient.

25. A compound of Formula I:

(I)



or pharmaceutically acceptable salt thereof,

wherein:

X is —CH— or —N—;

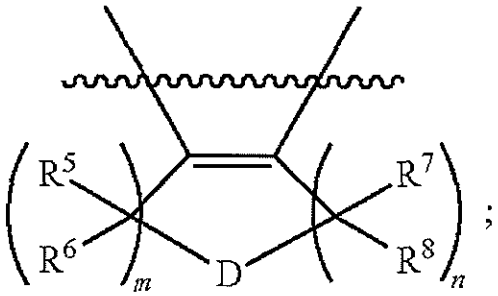
Y is —O— or —S—;

M is 0-5;

R^1 is each independently selected from the group consisting of: H, halo, —CN, —C_{1-6}alkyl, —C_{1-6}haloalkyl, —C_{1-6}thioalkyl, —C_{1-6}alkoxy, —C_{1-6}haloalkoxy, —SO_2C_{1-6}alkyl, aryl, heteroaryl, and heterocycloalkyl;

R^3 and R^4 are each independently selected from the group consisting of —H, halo, —C_{1-6}alkyl, —C_{1-6}haloalkyl, —CH_2OH, —C_{1-6}alkoxy, —C_{1-6}haloalkoxy, aryl, optionally substituted 5 or 6 membered heteroaryl, —(C_1-C_6alkyl)aryl, —(C_1-C_6 alkyl)heteroaryl, and —$(CR^{10}R^{11})_{1-3}NR^{12}R^{13}$;

or R^3 and R^4 taken together with the carbons to which they are attached form a saturated or unsaturated monocylic ring system, having the following structure:



D is —O—, —N(R^9)—, or a bond;

m and n are each independently 0-4, with the proviso that the sum of m and n is 1-5 when D is —O—, —N(R^9)—, or is 2-6 when D is a bond; and with the proviso that when D is a bond, R^1 is not —Cl in the para position;

R^5, R^6, R^7, R^8, are each independently selected from the group consisting of —H, —F, —C_{1-6}alkyl, —C_{1-6}haloalkyl, —OH, —C_{1-6}alkoxy, —C_{1-6}haloalkoxy;

R^9 is selected from the group consisting of —H, —C_{1-6}alkyl, —C_{1-6}thioalkyl, —C_{1-6}haloalkyl, —CO_2C_{1-6}alkyl, —SO_2(C_{1-6}alkyl), —C_{1-6}alkyl(aryl), —C_{1-6}alkyl(C_{3-6}cycloalkyl), —C_{1-6}alkyl(heterocycloalkyl), —C_{1-6}alkyl(heteroaryl), heteroaryl, —CO(aryl), —CO(heteroaryl), —CO(heterocycloalkyl), —CO(C_{3-6}cycloalkyl), wherein each aryl, cycloalkyl, heterocycloalkyl, heteroaryl are optionally unsubstituted or substituted with a member each independently selected from the group consisting of —H, —Cl, —F, and —CH_3;

R^{10} and R^{11} are each independently selected from the group consisting of —H, —F, —C_{1-6}alkyl, —CF_3 and —OH;

R^{12} and R^{13} are each independently selected from the group consisting of —H, —C_{1-6} alkyl, —C_{3-6}cycloalkyl, —C_{1-6}alkyl(aryl), —C_{1-6}alkyl(heteroaryl),

—C_{1-6}alkyl(heterocycloalkyl), —$CH_2CON(C_{1-6}$ alkyl)$_2$;

or R^{12} and R^{13} are taken together with the nitrogen to which they are attached form a heterocycloalkyl ring, optionally substituted with one or more R^{14}, where each R^{14} is independently selected from the group consisting of: —H, —C_{1-6}alkyl, —CH_2OH, —OH, —$COCH_3$, —SO_2CH_3, —O-pyridyl, 2-fluorophenyl, 3-fluorophenyl, 4-fluorophenyl, —O-phenyl, —O-(2-fluorophenyl), -morpholino, 1,1-difluoro-cyclopropyl, or two R^{14} members are taken together to form a —C_{3-6}heterocycloalkyl.

26. A compound selected from the group consisting of:

6-(2-Chlorobenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(3-Chlorobenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Chlorobenzyl)-9-methylthieno[3,2-e][1,2,4]triazolo [1,5-c]pyrimidin-5(6H)-one;

6-([1,1'-Biphenyl]-4-ylmethyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Chlorobenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-Benzyl-9-methylthieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-([1,1'-Biphenyl]-4-ylmethyl)-9-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-Benzyl-6-(2-chlorobenzyl)thieno[3,2-e][1,2,4]triazolo [1,5-c]pyrimidin-5(6H)-one;

8-Benzyl-6-(3-chlorobenzyl)thieno[3,2-e][1,2,4]triazolo [1,5-c]pyrimidin-5(6H)-one;

6-(2-Chlorobenzyl)-9-methylthieno[3,2-e][1,2,4]triazolo [1,5-c]pyrimidin-5(6H)-one;
6-(3-Chlorobenzyl)-9-methylthieno[3,2-e][1,2,4]triazolo [1,5-c]pyrimidin-5(6H)-one;
6-Benzyl-8-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;
6-(2-Chlorobenzyl)-8-methylthieno[3,2-e][1,2,4]triazolo [1,5-c]pyrimidin-5(6H)-one;
6-([1,1'-Biphenyl]-4-ylmethyl)-8-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;
6-(4-Chlorobenzyl)-8-methylthieno[3,2-e][1,2,4]triazolo [1,5-c]pyrimidin-5(6H)-one;
6-(3-Chlorobenzyl)-8-methylthieno[3,2-e][1,2,4]triazolo [1,5-c]pyrimidin-5(6H)-one;
6, 8-Dibenzylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;
6-([1,1'-Biphenyl]-4-ylmethyl)-8-benzylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;
6-(2-Chlorobenzyl)-8-isopentylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;
6-(3-Chlorobenzyl)-8-isopentylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;
6-([1,1'-Biphenyl]-4-ylmethyl)-8-isopentylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;
8-Benzyl-6-(4-chlorobenzyl)thieno[3,2-e][1,2,4]triazolo [1,5-c]pyrimidin-5(6H)-one;
6-(4-Chlorobenzyl)-8-isopentylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;
6-Benzylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5 (6H)-one;
6-Benzyl-8-isopentylthieno[3,2-e][1,2,4]triazolo[1,5-c] pyrimidin-5(6H)-one;
6-(4-Chlorobenzyl)-8,9-dimethylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c] pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-methylthieno[3,2-e][1,2,4]tri- azolo[1,5-c]pyrimidin-5(6H)-one;

8-((1,4-Oxazepan-4-yl)methyl)-6-(4-methoxybenzyl) thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)- one;

8-((Dimethylamino)methyl)-6-(4-methoxybenzyl)thieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-8-(morpholinomethyl)thieno [3,2- e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-8-((4-methylpiperazin-1-yl) methyl)thieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5 (6H)-one;

8-(((2S,6R)-2,6-Dimethylmorpholino)methyl)-6-(4- methoxybenzyl)thieno [3,2-e][1,2,4]triazolo[1,5-c]py- rimidin-5(6H)-one;

8-((4-Ethyl-3-oxopiperazin-1-yl)methyl)-6-(4-methoxy- benzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5 (6H)-one;

6-(4-Methoxybenzyl)-8-((4-(methylsulfonyl)piperazin-1- yl)methyl)thieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimi- din-5(6H)-one;

8-((2,2-dimethylmorpholino)methyl)-6-(4-Methoxyben- zyl)thieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5 (6H)-one;

8-(2-oxa-5-azabicyclo [2.2.1]heptan-5-ylmethyl)-6-(4- Methoxybenzyl)thieno [3,2-e][1,2,4]triazolo[1,5-c]py- rimidin-5(6H)-one;

8-(7-oxa-2-azaspiro [3.5]nonan-2-ylmethyl)-6-(4- Methoxybenzyl)thieno [3,2-e][1,2,4]triazolo[1,5-c]py- rimidin-5(6H)-one;

8-(2-Oxa-7-azaspiro [3.5]nonan-7-ylmethyl)-6-(4-methoxybenzyl)thieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

7-((6-(4-Methoxybenzyl)-5-oxo-5,6-dihydrothieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-8-yl)methyl)tetrahydro-1H-oxazolo[3,4-a]pyrazin-3 (5H)-one;

6-(4-Methoxybenzyl)-8-(1-methyl-3-(trifluoromethyl)-1H-pyrazol-5-yl)thieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-(3,5-Dimethylisoxazol-4-yl)-6-(4-methoxybenzyl) thieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-methyl-8-(pyrrolidin-1-ylmethyl)thieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-methyl-8-(morpholinomethyl) thieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((Dimethylamino)methyl)-6-(4-methoxybenzyl)-9-methylthieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((Cyclopropyl(methyl)amino)methyl)-6-(4-methoxybenzyl)-9-methylthieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((4-Hydroxypiperidin-1-yl)methyl)-6-(4-methoxybenzyl)-9-methylthieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((Benzyl(2-hydroxyethyl)amino)methyl)-6-(4-methoxybenzyl)-9-methylthieno [3,2-e][1,2,4]triazolo [1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-methyl-8-(piperazin-1-ylmethyl) thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-methyl-8-((((3-methyloxetan-3-yl)methyl)amino)methyl)thieno [3,2-e][1,2,4]triazolo [1,5-c]pyrimidin-5(6H)-one;

8-((4-Acetylpiperazin-1-yl)methyl)-6-(4-methoxybenzyl)-9-methylthieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-methyl-8-(((pyridin-3-ylmethyl)amino)methyl)thieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-methyl-8-((3-oxopiperazin-1-yl)methyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-methyl-8-((methyl((tetrahydrofuran-2-yl)methyl)amino)methyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-(((2S,6R)-2,6-Dimethylmorpholino)methyl)-6-(4-methoxybenzyl)-9-methylthieno [3,2-e][1,2,4]triazolo [1,5-c]pyrimidin-5(6H)-one;

8-(Isoindolin-2-ylmethyl)-6-(4-methoxybenzyl)-9-methylthieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((Cyclopropylamino)methyl)-6-(4-methoxybenzyl)-9-methylthieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

(S)-6-(4-Methoxybenzyl)-8-((2-(methoxymethyl)pyrrolidin-1-yl)methyl)-9-methylthieno[3,2-e][1,2,4]triazolo [1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-methyl-8-((methyl((tetrahydrofuran-3-yl)methyl)amino)methyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

2-(((6-(4-Methoxybenzyl)-9-methyl-5-oxo-5,6-dihydrothieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-8-yl)methyl)(methyl)amino)-N,N-dimethylacetamide;

8-((1,4-Oxazepan-4-yl)methyl)-6-(4-methoxybenzyl)-9-methylthieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-methyl-8-((4-methylpiperazin-1-yl)methyl)thieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-methyl-8-((4-(methylsulfonyl)piperazin-1-yl)methyl)thieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((4-Isopropylpiperazin-1-yl)methyl)-6-(4-methoxybenzyl)-9-methylthieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-(2-Oxa-5-azabicyclo [2.2.1]heptan-5-ylmethyl)-6-(4-methoxybenzyl)-9-methylthieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((4-Ethyl-3-oxopiperazin-1-yl)methyl)-6-(4-methoxybenzyl)-9-methylthieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-(8-Oxa-3-azabicyclo [3.2.1]octan-3-ylmethyl)-6-(4-methoxybenzyl)-9-methylthieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((2-Ethylmorpholino)methyl)-6-(4-methoxybenzyl)-9-methylthieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((2,2-Dimethylmorpholino)methyl)-6-(4-methoxybenzyl)-9-methylthieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-methyl-8-((2-methylmorpholino)methyl)thieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-methyl-8-((3-methylmorpholino)methyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-(((3R,5 S)-3,5-Dimethylpiperazin-1-yl)methyl)-6-(4-methoxybenzyl)-9-methylthieno [3,2-e][1,2,4]triazolo [1,5-c]pyrimidin-5(6H)-one;

8-((3,4-Dimethylpiperazin-1-yl)methyl)-6-(4-methoxybenzyl)-9-methylthieno [3,2-e][1,2,4]triazolo[1,5-c] pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-methyl-8-((3,3,4-trimethylpiperazin-1-yl)methyl)thieno [3,2-e][1,2,4]triazolo[1,5-c] pyrimidin-5(6H)-one;

(S)-8-((Hexahydropyrrolo[1,2-a]pyrazin-2(1H)-yl) methyl)-6-(4-methoxybenzyl)-9-methylthieno[3,2-e] [1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-Bromo-6-(4-methoxybenzyl)-9-methylthieno [3,2-e][1, 2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-(Hydroxymethyl)-6-(4-methoxybenzyl)-9-methylthieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

9-(((2S,6R)-2,6-Dimethylmorpholino)methyl)-6-(4-methoxybenzyl)thieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Chlorobenzyl)-8,9-dimethylfuro[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

tert-Butyl 6-(4-methoxybenzyl)-5-oxo-5,6,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c] pyrimidine-9(8H)-carboxylate;

6-(2-Chlorobenzyl)-8,9,10,11-tetrahydrobenzo[4,5] thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

4-(4-Methoxybenzyl)-2-(morpholinomethyl)pyrazolo[1, 5-c]thieno [3,2-e]pyrimidin-5(4H)-one;

6-(4-Chlorobenzyl)-10,10-dimethyl-6,8,10,11-tetrahydro-5H-pyrano[4',3':4,5]thieno[3,2-e][1,2,4]triazolo [1,5-c]pyrimidin-5-one;

6-Benzyl-8,9,10,11-tetrahydrobenzo[4,5]thieno[3,2-e][1, 2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(3-Chlorobenzyl)-8,9,10,11-tetrahydrobenzo[4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-([1,1'-Biphenyl]-4-ylmethyl)-8,9,10,11-tetrahydrobenzo[4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Chlorobenzyl)-6,8,10,11-tetrahydro-5H-pyrano[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5-one;

6-(4-Methylbenzyl)-6,8,10,11-tetrahydro-5H-pyrano[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5-one;

6-(4-(Trifluoromethyl)benzyl)-6, 8,10,11-tetrahydro-5H-pyrano[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5-one;

6-(4-Methoxybenzyl)-6,8,10,11-tetrahydro-5H-pyrano[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5-one;

6-(3,4-Dichlorobenzyl)-6,8,10,11-tetrahydro-5H-pyrano[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5-one;

6-(4-Fluorobenzyl)-6,8,10,11-tetrahydro-5H-pyrano[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5-one;

6-(4-Chloro-3-fluorobenzyl)-6, 8,10,11-tetrahydro-5H-pyrano[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5-one;

6-(4-Chloro-2-fluorobenzyl)-6, 8,10,11-tetrahydro-5H-pyrano[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5-one;

6-(3-Fluoro-4-methoxybenzyl)-6, 8,10,11-tetrahydro-5H-pyrano[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5-one;

6-(4-(Trifluoromethoxy)benzyl)-6, 8,10,11-tetrahydro-5H-pyrano[4',3':4,5]thieno [3,2-e][1,2,4]triazolo[1,5-c] pyrimidin-5-one;

6-(4-Ethoxybenzyl)-6,8,10,11-tetrahydro-5H-pyrano[4', 3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5-one;

6-(3,5-Difluoro-4-methoxybenzyl)-6,8,10,11-tetrahydro-5H-pyrano[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c] pyrimidin-5-one;

6-(4-Chlorobenzyl)-8,9,10,11-tetrahydropyrido[4',3':4,5] thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(3,4-Dimethoxybenzyl)-8,9,10,11-tetrahydropyrido[3', 2':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5 (6H)-one;

6-(4-Chlorobenzyl)-9-methyl-8,9,10,11-tetrahydropyrido [4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

9-Benzyl-6-(4-chlorobenzyl)-8,9,10,11-tetrahydropyrido [4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Chlorobenzyl)-9-(cyclopropylmethyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1, 5-c]pyrimidin-5(6H)-one;

2-(((2 S, 6R)-2,6-Dimethylmorpholino)methyl)-4-(4-methoxybenzyl)pyrazolo[1,5-c]thieno [3,2-e]pyrimidin-5(4H)-one;

6-(4-Chlorobenzyl)-9-((tetrahydro-2H-pyran-4-yl) methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3, 2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Chlorobenzyl)-9-(oxetan-3-yl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c] pyrimidin-5(6H)-one;

6-(4-Chlorobenzyl)-9-(2,2,2-trifluoroethyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-((5-methyl-1,3,4-thiadiazol-2-yl)methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-((tetrahydro-2H-pyran-4-yl)methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

9-(Cyclopropylmethyl)-6-(4-methoxybenzyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-((3-methyloxetan-3-yl)methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-(3-(methylthio)propyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-((tetrahydrofuran-3-yl)methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

9-((2,2-Difluorobenzo [d][1,3]dioxol-5-yl)methyl)-6-(4-methoxybenzyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-neopentyl-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-(pyrimidin-2-ylmethyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-((tetrahydro-2H-pyran-2-yl)methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-(3-(methylsulfonyl)propyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-(pyrimidin-4-ylmethyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-(pyridin-2-ylmethyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-(pyridin-4-ylmethyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-((1-methyl-1H-imidazol-2-yl)methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-((4-methylthiazol-5-yl)methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

9-(1,1-Dioxidothietan-3-yl)-6-(4-methoxybenzyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

9-((1,4-Dioxan-2-yl)methyl)-6-(4-methoxybenzyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-((5-oxotetrahydrofuran-2-yl)methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

9-(4-Fluorobenzyl)-6-(4-methoxybenzyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

9-(2-Fluorobenzyl)-6-(4-methoxybenzyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Chloro-2-fluorobenzyl)-9-((tetrahydro-2H-pyran-4-yl)methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Chloro-2-fluorobenzyl)-9-(pyridin-2-ylmethyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Chloro-2-fluorobenzyl)-9-((1-methyl-1H-imidazol-2-yl)methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Chloro-2-fluorobenzyl)-9-(pyrimidin-2-ylmethyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Chloro-2-fluorobenzyl)-9-((tetrahydrofuran-3-yl)methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-((tetrahydro-2H-pyran-3-yl)methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

11,11-Difluoro-6-(4-methoxybenzyl)-9-((tetrahydro-2H-pyran-4-yl)methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

11,11-Difluoro-6-(4-methoxybenzyl)-9-((tetrahydro-2H-pyran-3-yl)methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(2-Fluoro-4-methoxybenzyl)-9-(pyrimidin-2-ylmethyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(2-Fluoro-4-methoxybenzyl)-9-((1-methyl-1H-imidazol-2-yl)methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(2-Fluoro-4-methoxybenzyl)-9-(pyridin-2-ylmethyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(2-Fluoro-4-methoxybenzyl)-9-((tetrahydrofuran-3-yl)methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(2-Fluoro-4-methoxybenzyl)-9-((tetrahydro-2H-pyran-4-yl)methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(2-Fluoro-4-methoxybenzyl)-9-((tetrahydro-2H-pyran-3-yl)methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-((tetrahydrofuran-3-yl)methyl)-6,8,9,10,11,12-hexahydro-5H-[1,2,4]triazolo[1",5":1',6']pyrimido[5',4':4,5]thieno[2,3-c]azepin-5-one;

6-(4-Methoxybenzyl)-9-((1-methyl-1H-imidazol-2-yl)methyl)-6,8,9,10,11,12-hexahydro-5H-[1,2,4]triazolo[1",5":1',6']pyrimido[5',4':4,5]thieno[2,3-c]azepin-5-one;

6-(4-Methoxybenzyl)-9-(pyrimidin-2-ylmethyl)-6,8,9,10,11,12-hexahydro-5H-[1,2,4]triazolo[1",5":1',6']pyrimido[5',4':4,5]thieno[2,3-c]azepin-5-one;

6-(4-Methoxybenzyl)-9-(pyridin-2-ylmethyl)-6,8,9,10,11,12-hexahydro-5H-[1,2,4]triazolo[1",5":1',6']pyrimido[5',4':4,5]thieno[2,3-c]azepin-5-one;

6-(4-Methoxybenzyl)-9-((tetrahydro-2H-pyran-4-yl)methyl)-6,8,9,10,11,12-hexahydro-5H-[1,2,4]triazolo[1",5":1',6']pyrimido[5',4':4,5]thieno[2,3-c]azepin-5-one;

6-(4-Methoxybenzyl)-8-((tetrahydro-2H-pyran-4-yl) methyl)-8,9,10,11-tetrahydropyrido[3',2':4,5]thieno[3, 2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-8-((tetrahydro-2H-pyran-3-yl) methyl)-8,9,10,11-tetrahydropyrido[3',2':4,5]thieno[3, 2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-8-((tetrahydrofuran-3-yl)methyl)-8,9,10,11-tetrahydropyrido[3',2':4,5]thieno[3,2-e][1,2, 4]triazolo[1,5-c]pyrimidin-5(6H)-one;

9-(1,1-Difluoropropan-2-yl)-6-(4-Methoxybenzyl)-8,9, 10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4] triazolo[1,5-c]pyrimidin-5(6H)-one;

8-(4-Chlorobenzyl)-6-(4-Methoxybenzyl)-8,9,10,11-tetrahydropyrido[3',2':4,5]thieno[3,2-e][1,2,4]triazolo[1, 5-c]pyrimidin-5(6H)-one;

8-(4-Chlorobenzyl)-6-(3,4-dimethoxybenzyl)-8,9,10,11-tetrahydropyrido[3',2':4,5]thieno[3,2-e][1,2,4]triazolo [1,5-c]pyrimidin-5(6H)-one;

8-Benzyl-6-(3,4-dimethoxybenzyl)-8,9,10,11-tetrahydropyrido[3',2':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-(3-Chlorobenzyl)-6-(3,4-dimethoxybenzyl)-8,9,10,11-tetrahydropyrido[3',2':4,5]thieno[3,2-e][1,2,4]triazolo [1,5-c]pyrimidin-5(6H)-one;

11,11-Difluoro-6-(2-fluoro-4-methoxybenzyl)-9-((tetrahydro-2H-pyran-4-yl)methyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Chlorobenzyl)-9-(pyrazine-2-carbonyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo [1,5-c]pyrimidin-5(6H)-one;

6-(4-Chlorobenzyl)-9-(cyclopropanecarbonyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo [1,5-c]pyrimidin-5(6H)-one;

9-(Cyclopropanecarbonyl)-6-(4-Methoxybenzyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

9-(2,2-Difluorocyclopropanecarbonyl)-6-(4-Methoxybenzyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-(tetrahydrofuran-3-carbonyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-(methylsulfonyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-(1-methylpyrrolidine-3-carbonyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Chloro-2-fluorobenzyl)-9-(cyclopropanecarbonyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Chloro-2-fluorobenzyl)-9-(tetrahydrofuran-3-carbonyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

11,11-Difluoro-6-(4-Methoxybenzyl)-9-(tetrahydrofuran-3-carbonyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(2-Fluoro-4-methoxybenzyl)-9-(tetrahydrofuran-3-carbonyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(2-Fluoro-4-methoxybenzyl)-9-(tetrahydrofuran-3-carbonyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

9-(Cyclopropanecarbonyl)-6-(2-fluoro-4-methoxybenzyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

(R)-6-(4-Methoxybenzyl)-9-(tetrahydrofuran-3-carbonyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-(tetrahydrofuran-3-carbonyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-(tetrahydrofuran-3-carbonyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

(R)-6-(4-Methoxybenzyl)-9-(tetrahydrofuran-3-carbonyl)-6,8,9,10,11,12-hexahydro-5H-[1,2,4]triazolo[1",5":1',6']pyrimido[5',4':4,5]thieno[2,3-c]azepin-5-one;

9-(Cyclopropanecarbonyl)-6-(4-Methoxybenzyl)-6,8,9,10,11,12-hexahydro-5H-[1,2,4]triazolo[1",5":1',6']pyrimido[5',4':4,5]thieno[2,3-c]azepin-5-one;

8-(Cyclopropanecarbonyl)-6-(4-Methoxybenzyl)-8,9,10,11-tetrahydropyrido[3',2':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-8-(tetrahydrofuran-3-carbonyl)-8,9,10,11-tetrahydropyrido[3',2':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-Benzoyl-6-(3,4-dimethoxybenzyl)-8,9,10,11-tetrahydropyrido[3',2':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-(3-Chlorobenzoyl)-6-(3,4-dimethoxybenzyl)-8,9,10,11-tetrahydropyrido[3',2':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-(4-Chlorobenzoyl)-6-(3,4-dimethoxybenzyl)-8,9,10,11-tetrahydropyrido[3',2':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-(pyridin-2-yl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-(morpholin-2-ylmethyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-(pyrrolidine-3-carbonyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-8,9,10,11-tetrahydropyrido[3',4':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one; and

6-(4-Methoxybenzyl)-9-(piperidin-4-ylmethyl)-8,9,10,11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one, and pharmaceutically acceptable salts thereof.

27. A compound selected from the group consisting of:

6-(4-Methoxybenzyl)-8-((4-(pyridin-4-yloxy)piperidin-1-yl)methyl)thieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((4-(2-Fluorophenyl)piperazin-1-yl)methyl)-6-(4-Methoxybenzyl)thieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((4-(3-Fluorophenyl)piperazin-1-yl)methyl)-6-(4-Methoxybenzyl)thieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((4-(4-Fluorophenyl)piperazin-1-yl)methyl)-6-(4-Methoxybenzyl)thieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-((3-phenoxypyrrolidin-1-yl) methyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5 (6H)-one;

8-((3-(2-Fluorophenoxy)azetidin-1-yl)methyl)-6-(4-Methoxybenzyl)thieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-8-((4-morpholinopiperidin-1-yl) methyl)thieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5 (6H)-one;

8-((1,1-Difluoro-5-azaspiro[2.4]heptan-5-yl)methyl)-6-(4-Methoxybenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c] pyrimidin-5(6H)-one;

8-((4-Acetyl-1,4-diazepan-1-yl)methyl)-6-(4-Methoxybenzyl)thieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5 (6H)-one;

8-((1,4-Oxazepan-4-yl)methyl)-6-(2,3-difluoro-4-methoxybenzyl)thieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

9-((3-(Hydroxymethyl)-3-isobutylpiperidin-1-yl) methyl)-6-(4-Methoxybenzyl)thieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-(((2,2-Dimethyltetrahydro-2H-pyran-4-yl)(ethyl) amino)methyl)-6-(4-Methoxybenzyl)thieno[3,2-e][1,2, 4]triazolo[1,5-c]pyrimidin-5(6H)-one;

9-((Ethyl((tetrahydro-2H-pyran-4-yl)methyl)amino) methyl)-6-(4-Methoxybenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

8-((Ethyl((tetrahydro-2H-pyran-4-yl)methyl)amino) methyl)-6-(4-Methoxybenzyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-((methyl((tetrahydro-2H-pyran-4-yl)methyl)amino)methyl)thieno[3,2-e][1,2,4]triazolo [1,5-c]pyrimidin-5(6H)-one;

6-(2,3-Difluoro-4-methoxybenzyl)-8-(((2R,6S)-2,6-dimethylmorpholino)methyl)thieno[3,2-e][1,2,4]triazolo [1,5-c]pyrimidin-5(6H)-one;

8-(((2R,6S)-2,6-Dimethylmorpholino)methyl)-6-(3-fluoro-4-methoxybenzyl)thieno[3,2-e][1,2,4]triazolo [1,5-c]pyrimidin-5(6H)-one;

8-(((2R,6S)-2,6-Dimethylmorpholino)methyl)-6-(2-fluoro-4-methoxybenzyl)thieno [3,2-e][1,2,4]triazolo [1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-9-((((tetrahydro-2H-pyran-4-yl) methyl)amino)methyl)thieno [3,2-e][1,2,4]triazolo[1, 5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-8-((methyl(tetrahydro-2H-pyran-4-yl)amino)methyl)thieno [3,2-e][1,2,4]triazolo[1,5-c] pyrimidin-5(6H)-one;

6-(3-Chloro-4-fluorobenzyl)-8-(((2R,6S)-2,6-dimethyl-morpholino)methyl)thieno [3,2-e][1,2,4]triazolo[1,5-c] pyrimidin-5(6H)-one;

8-((1,1-Dioxidothiomorpholino)methyl)-6-(4-Methoxy-benzyl)thieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5 (6H)-one;

6-(3-Fluoro-4-methoxybenzyl)-8-(morpholinomethyl) thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(2-Fluoro-4-methoxybenzyl)-8-(morpholinomethyl) thieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(3-Chloro-4-fluorobenzyl)-8-(morpholinomethyl) thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(2,3-Difluoro-4-methoxybenzyl)-8-((methyl((3-methyloxetan-3-yl)methyl)amino)methyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-8-((((3-methyloxetan-3-yl)methyl) amino)methyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(2,3-Difluoro-4-methoxybenzyl)-8-((3-hydroxyazetidin-1-yl)methyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(2-Fluoro-4-methoxybenzyl)-8-((3-hydroxyazetidin-1-yl)methyl)thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(2,3-Difluoro-4-methoxybenzyl)-8-((dimethylamino) methyl)thieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5 (6H)-one;

9-((Diisopropylamino)methyl)-6-(4-Methoxybenzyl) thieno [3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-10-((tetrahydro-2H-pyran-4-yl) methyl)-8,9,10,11-tetrahydropyrido[3',4':4,5]thieno[3, 2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)-one;

6-(4-Methoxybenzyl)-6,8,9,10,11,12-hexahydro-5H-[1,2, 4]triazolo[1",5":1',6']pyrimido[5',4':4,5]thieno[2,3-c] azepin-5-one;

11,11-Difluoro-9-isobutyl-6-(4-Methoxybenzyl)-8,9,10, 11-tetrahydropyrido[4',3':4,5]thieno[3,2-e][1,2,4]tri- azolo[1,5-c]pyrimidin-5(6H)-one;

11,11-Difluoro-6-(4-Methoxybenzyl)-8,9,10,11-tetrahy- dropyrido[4',3':4,5]thieno[3,2-e][1,2,4]triazolo[1,5-c] pyrimidin-5(6H)-one; and

6-(4-Methoxybenzyl)-8,9,10,11-tetrahydropyrido[3',2':4, 5]thieno[3,2-e][1,2,4]triazolo[1,5-c]pyrimidin-5(6H)- one, and pharmaceutically acceptable salts thereof.