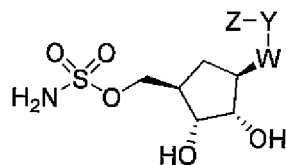


WHAT IS CLAIMED IS:

1. A chemical entity comprising a compound of Formula *I*:

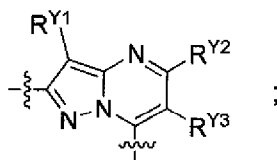


I,

or a pharmaceutically acceptable salt thereof, wherein:

W is $-N(R^{*3})-$;

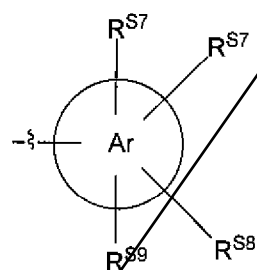
Y is



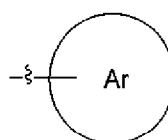
each of R^{Y1} , R^{Y2} and R^{Y3} is independently selected from -H, (a) halo, (b1) C_{1-3} aliphatic, (b2) R^{*2-1} , (c) $-OR^{*3}$, (d) $-N(R^{*3})_2$, (e) $-SR^{+3}$, (f) C_{1-2} haloalkyl and (g) C_{1-2} haloalkoxy;

Z is

- (1) optionally substituted aryl:

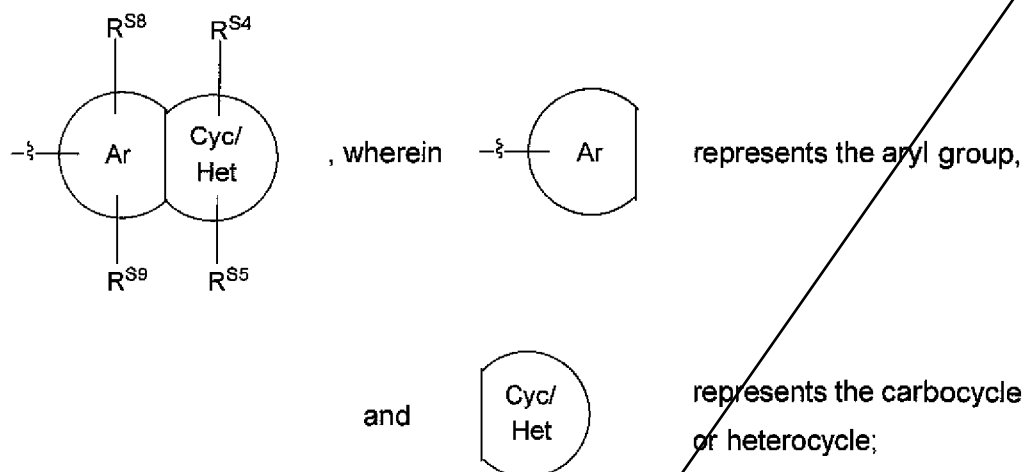


, wherein

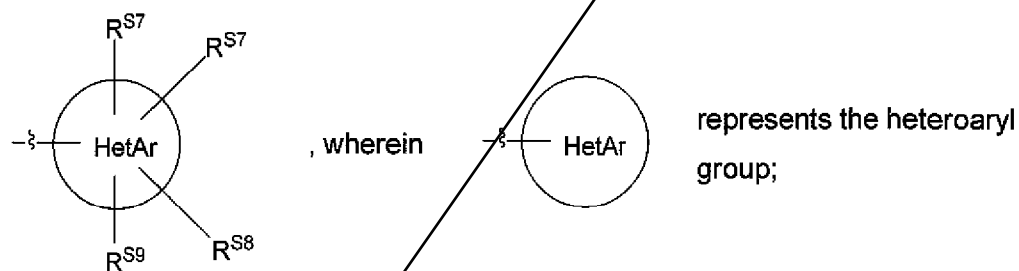


represents the aryl group;

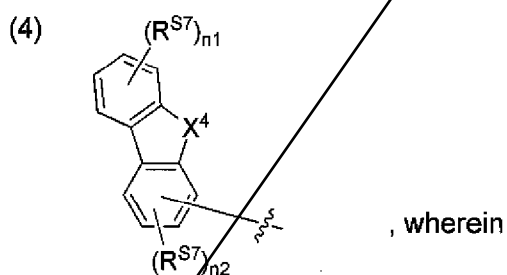
- (2) optionally substituted fused aryl:



(3) optionally substituted heteroaryl:



or



X^4 is -O-, -N(R^{*3})-, -S- or -C(O)-; and

each of n_1 and n_2 is independently 0, 1 or 2,

provided that $n_1 + n_2 = 0, 1$ or 2 ;

each instance of R^{S1} is independently selected from -H, (a) halo, (c) -OR^{*2}, (d) -N(R^{*2})₂ and (e) -SR⁺²;

each instance of R^{S2} is independently selected from -H, (a) halo, (c) $-OR^{*4}$, (d) $-N(R^{*4})_2$, (e) $-SR^{+4}$, (h) $-NO_2$, (i) $-CN$, (j) $-C(O)-R^{+4}$, (k) $-C(O)-OR^{*4}$, (l) $-C(O)-N(R^{*4})_2$, (m) $-O-C(O)-R^{+4}$, (n) $-N(R^{*4})-C(O)-R^{+4}$, (o) $-O-C(O)-OR^{*4}$, (p) $-O-C(O)-N(R^{*4})_2$, (q) $-N(R^{*4})-C(O)-OR^{*4}$ and (r) $-N(R^{*4})-C(O)-N(R^{*4})_2$;

each instance of R^{S4} is independently selected from -H, (a) halo, (b1) C_{1-4} aliphatic, (b2) R^{*4-2} , (c) $-OR^{*4}$, (d) $-N(R^{*4})_2$ and (e) $-SR^{+4}$;

each instance of R^{S5} is independently selected from -H, (a) halo, (b1) C_{1-4} aliphatic, (b2) R^{*4-2} , (c) $-OR^{*4}$, (d) $-N(R^{*4})_2$, (e) $-SR^{+4}$, (f) C_{1-3} haloalkyl, (h) $-NO_2$, (i) $-CN$, (j) $-C(O)-R^{+4}$, (k) $-C(O)-OR^{*4}$, (l) $-C(O)-N(R^{*4})_2$, (m) $-O-C(O)-R^{+4}$, (n) $-N(R^{*4})-C(O)-R^{+4}$, (o) $-O-C(O)-OR^{*4}$, (p) $-O-C(O)-N(R^{*4})_2$, (q) $-N(R^{*4})-C(O)-OR^{*4}$ and (r) $-N(R^{*4})-C(O)-N(R^{*4})_2$;

each instance of R^{S7} is independently selected from -H, (a) halo, (b1) C_{1-4} aliphatic, (b2) R^{*4-2} , (c) $-OR^{*4}$, (d) $-N(R^{*4})_2$ and (e) $-SR^{+4}$;

each instance of R^{S8} is independently selected from -H, (a) halo, (b1) C_{1-4} aliphatic, (b2) R^{*4-2} , (c) $-OR^{*4}$, (d) $-N(R^{*4})_2$, (e) $-SR^{+4}$, (f) C_{1-3} haloalkyl, (g1) C_{1-3} haloalkoxy, (g2) C_{1-3} haloalkylthio, (h) $-NO_2$, (i) $-CN$, (j) $-C(O)-R^{+4}$, (k) $-C(O)-OR^{*4}$, (l) $-C(O)-N(R^{*4})_2$, (m) $-O-C(O)-R^{+4}$, (n) $-N(R^{*4})-C(O)-R^{+4}$, (o) $-O-C(O)-OR^{*4}$, (p) $-O-C(O)-N(R^{*4})_2$, (q) $-N(R^{*4})-C(O)-OR^{*4}$ and (r) $-N(R^{*4})-C(O)-N(R^{*4})_2$;

each instance of R^{S9} is independently selected from -H, (a) halo, (b1) C_{1-6} aliphatic, (b2) R^{*6-3} , (c) $-OR^{*6}$, (d) $-N(R^{*6})_2$, (e) $-SR^{+6}$, (f) C_{1-3} haloalkyl, (g1) C_{1-3} haloalkoxy, (g2) C_{1-3} haloalkylthio, (h) $-NO_2$, (i) $-CN$, (j) $-C(O)-R^{+6}$, (k) $-C(O)-OR^{*6}$, (l) $-C(O)-N(R^{*6})_2$, (m) $-O-C(O)-R^{+6}$, (n) $-N(R^{*6})-C(O)-R^{+6}$, (o) $-O-C(O)-OR^{*6}$, (p) $-O-C(O)-N(R^{*6})_2$, (q) $-N(R^{*6})-C(O)-OR^{*6}$, (r) $-N(R^{*6})-C(O)-N(R^{*6})_2$, (s) $-Si(R^{+2})_3$, (aa) C_{3-8} carbocyclyl, (bb) $-A-(C_{3-8} \text{ carbocyclyl})$, (cc) 5- to 10-membered heterocyclyl, (dd) $-A-(5- \text{ to } 10\text{-membered heterocyclyl})$, (ee) C_{6-10} aryl, (ff) $-A-(C_{6-10} \text{ aryl})$, (gg) 5- to 10-membered heteroaryl and (hh) $-A-(5- \text{ to } 10\text{-membered heteroaryl})$;

wherein each instance of A is independently selected from C_{1-3} alkylene, $C_{0-3,0-3}$ heteroalkylene, -O-, -S-, $-N(R^{*1})-$ and $-C(O)-$;

and wherein each of (aa)-(dd) is optionally substituted with 1-3 groups independently selected from (a) halo, (b1) C_{1-2} aliphatic, (b2) R^{*2-1} , (c) $-OR^{*2}$, (d) $-N(R^{*2})_2$ and (e) $-SR^{+2}$;

and wherein each of **(ee)-(hh)** is optionally substituted with 1-3 groups independently selected from **(a)** halo, **(b1)** C₁₋₄ aliphatic, **(b2)** R^{#4-2}, **(c)** -OR^{*4}, **(d)** -N(R^{*4})₂ and **(e)** -SR^{†4};

each instance of R^{*6} is independently -H or C₁₋₆ alkyl;

each instance of R^{*4} is independently -H or C₁₋₄ alkyl;

each instance of R^{*3} is independently -H or C₁₋₃ alkyl;

each instance of R^{*2} is independently -H or C₁₋₂ alkyl;

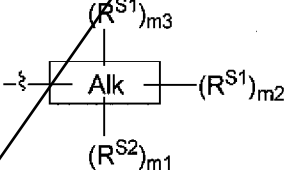
each instance of R^{*1} is independently -H or methyl;

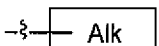
each instance of R^{†6} is independently C₁₋₆ alkyl;

each instance of R^{†4} is independently C₁₋₄ alkyl;

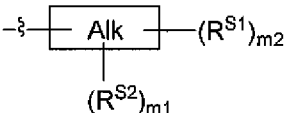
each instance of R^{†3} is independently C₁₋₃ alkyl;

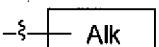
each instance of R^{†2} is independently C₁₋₂ alkyl;

each instance of R^{†6-3} is independently , wherein

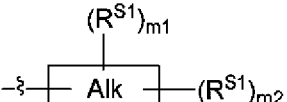
 represents C₁₋₆ alkyl; and

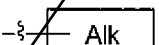
each of m1, m2 and m3 is independently 0 or 1;

each instance of R^{†4-2} is independently , wherein

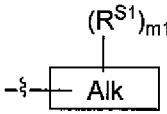
 represents C₁₋₄ alkyl; and

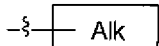
each of m1 and m2 is independently 0 or 1;

each instance of R^{#4-2} is independently , wherein

 represents C₁₋₄ alkyl; and

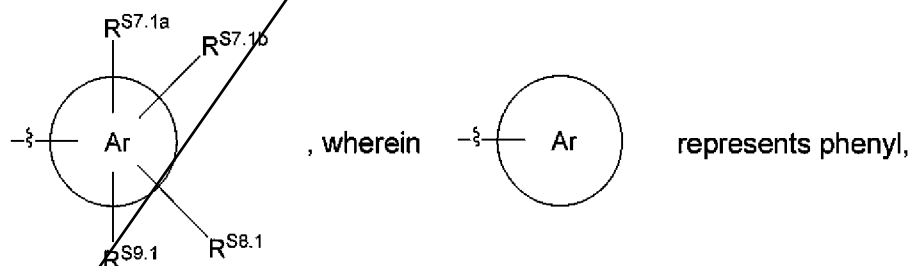
each of m1 and m2 is independently 0 or 1; and

each instance of R^{*2-1} is independently , wherein

 represents C_{1-2} alkyl; and

$m1$ is 0 or 1.

2. The chemical entity of claim 1, wherein W is $-N(R^{*1})-$.
3. The chemical entity of claim 2, wherein W is $-NH-$.
4. The chemical entity of any of claims 1-3, wherein each of R^{Y1} , R^{Y2} and R^{Y3} is independently selected from $-H$, (a) halo and (b1) C_{1-3} alkyl.
5. The chemical entity of any of claims 1-3, wherein each of R^{Y1} , R^{Y2} and R^{Y3} is independently selected from $-H$, (a) $-F$, $-Cl$ and (b1) methyl.
6. The chemical entity of any of claims 1-3, wherein each of R^{Y1} , R^{Y2} , and R^{Y3} is $-H$.
7. The chemical entity of any of claims 1-6, wherein Z is optionally substituted aryl.
8. The chemical entity of claim 7, wherein Z is optionally substituted phenyl:



each of $R^{S7.1a}$ and $R^{S7.1b}$ is independently selected from $-H$, (a) halo, (b1) C_{1-4} aliphatic, (b2) R^{*4-2} , (c) $-OR^{*4}$, (d) $-N(R^{*4})_2$ and (e) $-SR^{†4}$;

$R^{S8.1}$ is selected from $-H$, (a) halo, (b1) C_{1-4} aliphatic, (b2) R^{*4-2} , (c) $-OR^{*4}$, (d) $-N(R^{*4})_2$, (e) $-SR^{†4}$, (f) C_{1-3} haloalkyl, (g1) C_{1-3} haloalkoxy, (g2) C_{1-3} haloalkylthio, (h) $-NO_2$, (i) $-CN$, (j) $-C(O)-R^{†4}$, (k) $-C(O)-OR^{*4}$, (l) $-C(O)-N(R^{*4})_2$, (m) $-O-C(O)-R^{†4}$, (n) $-N(R^{*4})-C(O)-R^{†4}$,

(o) -O-C(O)-OR^{*4}, (p) -O-C(O)-N(R^{*4})₂, (q) -N(R^{*4})-C(O)-OR^{*4} and (r) -N(R^{*4})-C(O)-N(R^{*4})₂;

R^{S9.1} is selected from -H, (a) halo, (b1) C₁₋₆ aliphatic, (b2) R^{*6-3}, (c) -OR^{*6}, (d) -N(R^{*6})₂, (e) -SR^{†6}, (f) C₁₋₃ haloalkyl, (g1) C₁₋₃ haloalkoxy, (g2) C₁₋₃ haloalkylthio, (h) -NO₂, (i) -CN, (j) -C(O)-R^{†6}, (k) -C(O)-OR^{*6}, (l) -C(O)-N(R^{*6})₂, (m) -O-C(O)-R^{†6}, (n) -N(R^{*6})-C(O)-R^{†6}, (o) -O-C(O)-OR^{*6}, (p) -O-C(O)-N(R^{*6})₂, (q) -N(R^{*6})-C(O)-OR^{*6}, (r) -N(R^{*6})-C(O)-N(R^{*6})₂, (s) -Si(R^{†2})₃, (aa) C₃₋₈ carbocyclyl, (bb) -A-(C₃₋₈ carbocyclyl), (cc) 5- to 10-membered heterocyclyl, (dd) -A-(5- to 10-membered heterocyclyl), (ee) C₆₋₁₀ aryl, (ff) -A-(C₆₋₁₀ aryl), (gg) 5- to 10-membered heteroaryl and (hh) -A-(5- to 10-membered heteroaryl);

wherein A is selected from C₁₋₃ alkylene,

C_{0-3,0-3} heteroalkylene, -O-, -S-, -N(R^{*1})- and -C(O)-;

and wherein each of (aa)-(dd) is optionally substituted with 1-3 groups independently selected from (a) halo, (b1) C₁₋₂ aliphatic, (b2) R^{*2-1}, (c) -OR^{*2}, (d) -N(R^{*2})₂ and (e) -SR^{†2};

and wherein each of (ee)-(hh) is optionally substituted with 1-3 groups independently selected from (a) halo, (b1) C₁₋₄ aliphatic, (b2) R^{*4-2}, (c) -OR^{*4}, (d) -N(R^{*4})₂ and (e) -SR^{†4}.

9. The chemical entity of claim 8, wherein at least 1 of R^{S7.1a}, R^{S7.1b}, R^{S8.1} and R^{S9.1} is -H.

10. The chemical entity of claim 8, wherein at least 2 of R^{S7.1a}, R^{S7.1b}, R^{S8.1} and R^{S9.1} are -H.

11. The chemical entity of any of claims 8-10, wherein:

R^{S9.1} is selected from -H, (a) halo, (b1) C₁₋₆ aliphatic, (b2) R^{*6-3}, (c) -OR^{*6}, (d) -N(R^{*6})₂, (e) -SR^{†6}, (f) C₁₋₃ haloalkyl, (g1) C₁₋₃ haloalkoxy, (g2) C₁₋₃ haloalkylthio, (h) -NO₂, (i) -CN, (j) -C(O)-R^{†6}, (k) -C(O)-OR^{*6}, (l) -C(O)-N(R^{*6})₂, (m) -O-C(O)-R^{†6}, (n) -N(R^{*6})-C(O)-R^{†6}, (o) -O-C(O)-OR^{*6}, (p) -O-C(O)-N(R^{*6})₂, (q) -N(R^{*6})-C(O)-OR^{*6}, (r) -N(R^{*6})-C(O)-N(R^{*6})₂, (s) -Si(R^{†2})₃, (aa) C₃₋₆ carbocyclyl, (bb) -A-(C₃₋₆ carbocyclyl), (cc) 5- to 6-membered heterocyclyl, (dd) -A-(5- to 6-membered heterocyclyl), (ee) C₆₋₁₀ aryl, (ff) -A-(C₆₋₁₀ aryl), (gg) 5- to 10-membered heteroaryl and (hh) -A-(5- to 10-membered heteroaryl);

wherein **A** is selected from C_{1-3} alkylene,

$C_{0-2,0-2}$ heteroalkylene, -O-, -S-, -N(R^{*1})- and -C(O)-;

and wherein each of **(aa)-(dd)** is optionally substituted with 1-2 groups independently selected from **(a)** halo, **(b1)** C_{1-2} aliphatic, **(b2)** R^{#2-1}, **(c)** -OR^{*2}, **(d)** -N(R^{*2})₂ and **(e)** -SR^{†2};

and wherein each of **(ee)-(hh)** is optionally substituted with 1-3 groups independently selected from **(a)** halo, **(b1)** C_{1-4} aliphatic, **(b2)** R^{#4-2}, **(c)** -OR^{*4}, **(d)** -N(R^{*4})₂ and **(e)** -SR^{†4}.

12. The chemical entity of claim 11, wherein:

each of **(aa)-(dd)** is optionally substituted with 1 group selected from **(a)** halo, **(b1)** C_{1-2} aliphatic, **(b2)** R^{#2-1}, **(c)** -OR^{*2}, **(d)** -N(R^{*2})₂ and **(e)** -SR^{†2}; and

each of **(ee)-(hh)** is optionally substituted with 1-2 groups independently selected from **(a)** halo, **(b1)** C_{1-4} aliphatic, **(b2)** R^{#4-2}, **(c)** -OR^{*4}, **(d)** -N(R^{*4})₂ and **(e)** -SR^{†4}.

13. The chemical entity of any of claims 8-12, wherein:

each of R^{S8.1} and R^{S9.1} is independently selected from -H, **(a)** -F, -Cl, **(b1)** C_{1-2} alkyl, **(c)** -OR^{*2}, **(d)** -N(R^{*2})₂, **(e)** -SR^{†2}, **(f)** -CF₃, **(g1)** -O-CF₃ and **(g2)** -S-CF₃.

14. The chemical entity of claim 13, wherein:

each of R^{S8.1} and R^{S9.1} is independently selected from -H, **(a)** -F, -Cl, **(b1)** -CH₃, **(c)** -OMe, **(f)** -CF₃, **(g1)** -O-CF₃ and **(g2)** -S-CF₃.

15. The chemical entity of any of claims 11-14, wherein:

R^{S7.1b} is -H.

16. The chemical entity of any of claims 11-14, wherein:

each of R^{S7.1a} and R^{S7.1b} is -H.

17. The chemical entity of any of claims 8-12, wherein:

$R^{S9.1}$ is selected from -H, (a) halo, (b1) C_{1-4} aliphatic, (b2) $R^{#6-3}$, (c) $-OR^{*4}$, (d) $-N(R^{*4})_2$, (e) $-SR^{+4}$, (f) C_{1-3} haloalkyl, (g1) C_{1-3} haloalkoxy, (g2) C_{1-3} haloalkylthio, (h) $-NO_2$, (i) $-CN$, (j) $-C(O)-R^{+4}$, (k) $-C(O)-OR^{*4}$, (l) $-C(O)-N(R^{*4})_2$, (m) $-O-C(O)-R^{+4}$, (n) $-N(R^{*4})-C(O)-R^{+4}$, (o) $-O-C(O)-OR^{*4}$, (p) $-O-C(O)-N(R^{*4})_2$, (q) $-N(R^{*4})-C(O)-OR^{*4}$, (r) $-N(R^{*4})-C(O)-N(R^{*4})_2$, (s) $-Si(R^{+2})_3$, (aa) C_{3-6} carbocyclyl, (bb) $-A-(C_{3-6} \text{ carbocyclyl})$, (cc) 5- to 6-membered heterocyclyl, (dd) $-A-(5\text{- to }6\text{-membered heterocyclyl})$, (ee) C_6 aryl, (ff) $-A-(C_6 \text{ aryl})$, (gg) 5- to 6-membered heteroaryl and (hh) $-A-(5\text{- to }6\text{-membered heteroaryl})$;

wherein A is selected from C_{1-3} alkylene,

$C_{0-2,0-2}$ heteroalkylene, -O-, -S-, $-N(R^{*1})$ - and $-C(O)-$;

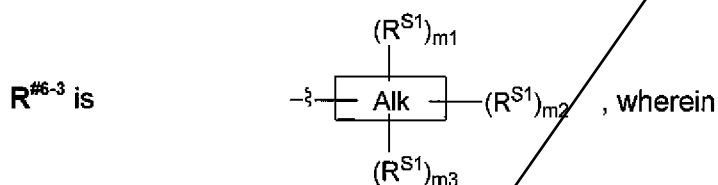
and wherein each of (aa)-(dd) is optionally substituted with 1 group selected from

(a) halo, (b1) C_{1-2} aliphatic, (b2) $R^{#2-1}$, (c) $-OR^{*2}$, (d) $-N(R^{*2})_2$ and (e) $-SR^{+2}$;

and wherein each of (ee)-(hh) is optionally substituted with 1-2 groups independently

selected from (a) halo, (b1) C_{1-4} aliphatic, (b2) $R^{#4-2}$, (c) $-OR^{*4}$, (d) $-N(R^{*4})_2$ and

(e) $-SR^{+4}$; and



$-\boxed{\text{Alk}}$ represents C_{1-6} alkyl; and

each of $m1$, $m2$ and $m3$ is independently 0 or 1.

18. The chemical entity of claim 17, wherein:

$R^{S9.1}$ is selected from -H, (a) halo, (b1) C_{1-4} aliphatic, (b2) $R^{#6-3}$, (c) $-OR^{*4}$, (f) C_{1-3} haloalkyl, (g1) C_{1-3} haloalkoxy, (g2) C_{1-3} haloalkylthio, (s) $-Si(R^{+2})_3$, (aa) C_{3-6} carbocyclyl, (bb) $-A-(C_{3-6} \text{ carbocyclyl})$, (cc) 5- to 6-membered heterocyclyl, (ee) C_6 aryl, (ff) $-A-(C_6 \text{ aryl})$ and (gg) 5- to 6-membered heteroaryl;

wherein A is selected from $-CH_2-$, $C_{0-1,0-1}$ heteroalkylene, -O-, -S-, -NH- and $-C(O)-$;

and wherein each of (aa)-(cc) is optionally substituted with 1 group selected from

(a) halo, (b1) C_{1-2} aliphatic, (b2) $R^{#2-1}$, (c) $-OR^{*2}$, (d) $-N(R^{*2})_2$ and (e) $-SR^{+2}$;

and wherein each of **(ee)**-**(gg)** is optionally substituted with 1 group selected from **(a)** halo, **(b1)** C₁₋₂ aliphatic, **(b2)** R^{#2-1}, **(c)** -OR^{*2}, **(d)** -N(R^{*2})₂ and **(e)** -SR^{†2}.

19. The chemical entity of any of claims 17-18, wherein:

R^{S9.1} is selected from -H, **(a)** -Cl, -Br, **(b1)** ^tBu, -C≡C, **(b2)** -C(CH₃)₂-CF₃, -C(CH₃)₂-O-Me, -C(CH₃)₂-O-Et, -C(CH₃)₂-O-Pr, -C(CH₃)(CH₂-OH)(CH₂-Cl), **(c)** -OMe, **(f)** -CF₃, **(g1)** -O-CHF₂, -O-CF₃, **(g2)** -S-CF₃, **(s)** -Si(CH₃)₃, **(aa)** cyclopentyl, cyclopenten-1-yl, **(bb)** -S-cyclopropylmethyl, **(cc)** pyrrolidin-1-yl, piperidin-1-yl, pyrrolidin-2-on-1-yl, morpholin-4-yl, **(ee)** phenyl, **(ff)** benzyl, -O-Ph, -C(O)-Ph, **(gg)** pyridin-2-yl and 1-methyl-1H-pyrazol-2-yl.

20. The chemical entity of any of claims 17-19, wherein:

R^{S8.1} is selected from -H, **(a)** halo, **(b1)** C₁₋₂ aliphatic, **(b2)** R^{^2-1}, **(c)** -OR^{*2}, **(d)** -N(R^{*2})₂, **(e)** -SR^{†2}, **(f)** C₁₋₃ haloalkyl, **(g1)** C₁₋₃ haloalkoxy, **(g2)** C₁₋₃ haloalkylthio, **(h)** -NO₂, **(i)** -CN, **(j)** -C(O)-R^{†2}, **(k)** -C(O)-OR^{*2}, **(l)** -C(O)-N(R^{*2})₂, **(m)** -O-C(O)-R^{†2}, **(n)** -N(R^{*2})-C(O)-R^{†2}, **(o)** -O-C(O)-OR^{*2}, **(p)** -O-C(O)-N(R^{*2})₂, **(q)** -N(R^{*2})-C(O)-OR^{*2} and **(r)** -N(R^{*2})-C(O)-N(R^{*2})₂.

21. The chemical entity of any of claims 17-19, wherein:

R^{S8.1} is -H.

22. The chemical entity of any of claims 17-19, wherein:

R^{S7.1b} is -H; and

R^{S8.1} is -H.

23. The chemical entity of any of claims 17-19, wherein:

each of R^{S7.1a} and R^{S7.1b} is -H; and

R^{S8.1} is -H.

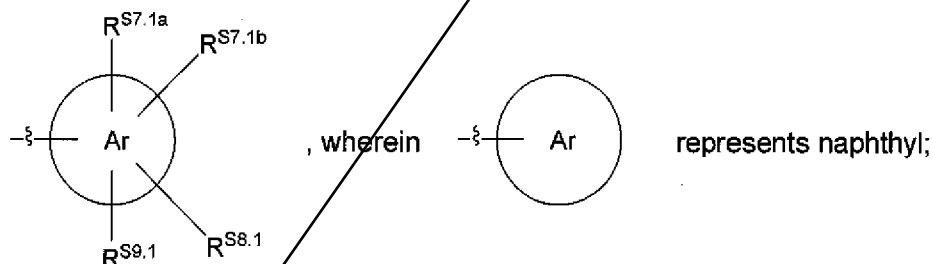
24. The chemical entity of claim 8, wherein the compound is

- I-001 (rac)-((1R,2R,3S,4R)-2,3-dihydroxy-4-(2-phenylpyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl)methyl rel-sulfamate;
- I-003 (rac)-((1R,2R,3S,4R)-4-(2-(biphenyl-3-yl)pyrazolo[1,5-a]pyrimidin-7-ylamino)-2,3-dihydroxycyclopentyl)methyl rel-sulfamate;
- I-004 (rac)-((1R,2R,3S,4R)-2,3-dihydroxy-4-[(5-methyl-2-phenylpyrazolo[1,5-a]pyrimidin-7-yl)amino]cyclopentyl)methyl rel-sulfamate;
- I-005 (rac)-((1R,2R,3S,4R)-4-((2-(3-Chlorophenyl)pyrazolo[1,5-a]pyrimidin-7-yl)amino)-2,3-dihydroxycyclopentyl)methyl rel-sulfamate;
- I-006 (rac)-((1R,2R,3S,4R)-4-[(5-chloro-2-phenylpyrazolo[1,5-a]pyrimidin-7-yl)amino]-2,3-dihydroxycyclopentyl)methyl rel-sulfamate;
- I-007 (rac)-((1R,2R,3S,4R)-2,3-Dihydroxy-4-((2-(3-(trifluoromethyl)phenyl)pyrazolo[1,5-a]pyrimidin-7-yl)amino)cyclopentyl)methyl rel-sulfamate;
- I-008 (rac)-((1R,2R,3S,4R)-4-(2-(4-bromophenyl)-5-chloropyrazolo[1,5-a]pyrimidin-7-ylamino)-2,3-dihydroxycyclopentyl)methyl rel-sulfamate;
- I-013 (rac)-[(1R,2R,3S,4R)-4-[(2-(2,4-dichlorophenyl)pyrazolo[1,5-a]pyrimidin-7-yl)amino]-2,3-dihydroxycyclopentyl)methyl rel-sulfamate;
- I-014 (rac)-[(1R,2R,3S,4R)-4-[(5-chloro-2-(4-methoxyphenyl)pyrazolo[1,5-a]pyrimidin-7-yl)amino]-2,3-dihydroxycyclopentyl)methyl rel-sulfamate;
- I-015 (rac)-((1R,2R,3S,4R)-4-((2-(3-(tert-Butyl)phenyl)pyrazolo[1,5-a]pyrimidin-7-yl)amino)-2,3-dihydroxycyclopentyl)methyl rel-sulfamate;
- I-020 (rac)-((1R,2R,3S,4R)-4-(2-(5-chloro-2-methoxyphenyl)pyrazolo[1,5-a]pyrimidin-7-ylamino)-2,3-dihydroxycyclopentyl)methyl rel-sulfamate;
- I-021 (rac)-((1R,2R,3S,4R)-4-(2-(5-chloro-2-methylphenyl)pyrazolo[1,5-a]pyrimidin-7-ylamino)-2,3-dihydroxycyclopentyl)methyl rel-sulfamate;
- I-028 (rac)-((1R,2R,3S,4R)-4-((2-(3-Bromophenyl)pyrazolo[1,5-a]pyrimidin-7-yl)amino)-2,3-dihydroxycyclopentyl)methyl rel-sulfamate;
- I-029 (rac)-((1R,2R,3S,4R)-4-((2-(2-Fluoro-5-(trifluoromethyl)phenyl)pyrazolo[1,5-a]pyrimidin-7-yl)amino)-2,3-dihydroxycyclopentyl)methyl rel-sulfamate;
- I-030 (rac)-((1R,2R,3S,4R)-4-((2-(2-Chloro-5-(trifluoromethyl)phenyl)pyrazolo[1,5-a]pyrimidin-7-yl)amino)-2,3-dihydroxycyclopentyl)methyl rel-sulfamate;
- I-035 (rac)-((1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(3-(trimethylsilyl)phenyl)pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl)methyl rel-sulfamate;
- I-036 (rac)-((1R,2R,3S,4R)-2,3-Dihydroxy-4-((2-(3-(pyridin-2-yl)phenyl)pyrazolo[1,5-a]pyrimidin-7-yl)amino)cyclopentyl)methyl rel-sulfamate;
- I-040 (rac)-((1R,2R,3S,4R)-2,3-Dihydroxy-4-((2-(3-(trifluoromethoxy)phenyl)pyrazolo[1,5-a]pyrimidin-7-yl)amino)cyclopentyl)methyl rel-sulfamate;
- I-044 (rac)-((1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(3-(trifluoromethylthio)phenyl)pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl)methyl rel-sulfamate;
- I-046 (rac)-((1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(3-(pyrrolidin-1-yl)phenyl)pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl)methyl rel-sulfamate;

- I-047 (rac)-((1R,2R,3S,4R)-4-(2-(3-cyclopentenylphenyl)pyrazolo[1,5-a]pyrimidin-7-ylamino)-2,3-dihydroxycyclopentyl)methyl rel-sulfamate;
- I-048 (rac)-((1R,2R,3S,4R)-4-([2-(3-cyclopentylphenyl)pyrazolo[1,5-a]pyrimidin-7-yl]amino)-2,3-dihydroxycyclopentyl)methyl rel-sulfamate;
- I-050 (rac)-((1R,2R,3S,4R)-4-((2-(3-(difluoromethoxy)phenyl)pyrazolo[1,5-a]pyrimidin-7-yl)amino)-2,3-dihydroxycyclopentyl)methyl rel-sulfamate;
- I-051 (rac)-((1R,2R,3S,4R)-2,3-dihydroxy-4-((2-(3-phenoxyphenyl)pyrazolo[1,5-a]pyrimidin-7-yl)amino)cyclopentyl)methyl rel-sulfamate;
- I-057 (rac)-((1R,2R,3S,4R)-4-(2-(5-chloro-2-(trifluoromethoxy)phenyl)pyrazolo[1,5-a]pyrimidin-7-ylamino)-2,3-dihydroxycyclopentyl)methyl rel-sulfamate;
- I-058 (rac)-((1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(3-(1,1,1-trifluoro-2-methylpropan-2-yl)phenyl)pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl)methyl rel-sulfamate;
- I-063 (rac)-((1R,2R,3S,4R)-4-([2-(5-tert-butyl-2-methoxyphenyl)pyrazolo[1,5-a]pyrimidin-7-yl]amino)-2,3-dihydroxycyclopentyl)methyl rel-sulfamate;
- I-065 (rac)-((1R,2R,3S,4R)-2,3-dihydroxy-4-((2-(2-methoxy-5-(trifluoromethyl)phenyl)pyrazolo[1,5-a]pyrimidin-7-yl)amino)cyclopentyl)methyl rel-sulfamate;
- I-066 (rac)-((1R,2R,3S,4R)-2,3-dihydroxy-4-((2-(2-methoxy-5-(trifluoromethoxy)phenyl)pyrazolo[1,5-a]pyrimidin-7-yl)amino)cyclopentyl)methyl rel-sulfamate;
- I-068 (rac)-((1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(2-phenoxyphenyl)pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl)methyl rel-sulfamate;
- I-069 (rac)-((1R,2R,3S,4R)-4-(2-(3-benzylphenyl)pyrazolo[1,5-a]pyrimidin-7-ylamino)-2,3-dihydroxycyclopentyl)methyl rel-sulfamate;
- I-070 (rac)-((1R,2R,3S,4R)-4-(2-(4-fluoro-2-methoxyphenyl)pyrazolo[1,5-a]pyrimidin-7-ylamino)-2,3-dihydroxycyclopentyl)methyl rel-sulfamate;
- I-072 (rac)-((1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(2-methoxyphenyl)pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl)methyl rel-sulfamate;
- I-073 (rac)-((1R,2R,3S,4R)-4-(2-(3-benzoylphenyl)pyrazolo[1,5-a]pyrimidin-7-ylamino)-2,3-dihydroxycyclopentyl)methyl rel-sulfamate;
- I-076 (rac)-((1R,2R,3S,4R)-4-(2-(3-(cyclopropylmethylthio)phenyl)pyrazolo[1,5-a]pyrimidin-7-ylamino)-2,3-dihydroxycyclopentyl)methyl rel-sulfamate;
- I-077 (rac)-((1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(3-(piperidin-1-yl)phenyl)pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl)methyl rel-sulfamate;
- I-078 (rac)-((1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(3-morpholinophenyl)pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl)methyl rel-sulfamate;
- I-079 (rac)-((1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(2-(trifluoromethylthio)phenyl)pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl)methyl rel-sulfamate;
- I-080 (rac)-((1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(4-(trifluoromethylthio)phenyl)pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl)methyl rel-sulfamate;
- I-082 (rac)-((1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(3-(2-methoxypropan-2-yl)phenyl)pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl)methyl rel-sulfamate;

- I-083 (rac)-[(1R,2R,3S,4R)-4-[[2-(3-ethynylphenyl)pyrazolo[1,5-a]pyrimidin-7-yl]amino]-2,3-dihydroxycyclopentyl]methyl rel-sulfamate;
- I-084 (rac)-[(1R,2R,3S,4R)-4-(2-(3-(2-ethoxypropan-2-yl)phenyl)pyrazolo[1,5-a]pyrimidin-7-ylamino)-2,3-dihydroxycyclopentyl]methyl rel-sulfamate;
- I-087 (rac)-[(1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(3-(2-oxopyrrolidin-1-yl)phenyl)pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl]methyl rel-sulfamate;
- I-089 (rac)-[(1R,2R,3S,4R)-2,3-dihydroxy-4-[(6-methyl-2-phenylpyrazolo[1,5-a]pyrimidin-7-yl)amino]cyclopentyl]methyl rel-sulfamate;
- I-090 (rac)-[(1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(3-(2-propoxypropan-2-yl)phenyl)pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl]methyl rel-sulfamate;
- I-101 (s.e.)-[(1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(3-(trifluoromethylthio)-phenyl)pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl]methyl sulfamate;
- I-102 (s.e.)-[(1R,2R,3S,4R)-2,3-dihydroxy-4-((2-[2-methoxy-5-(trifluoromethoxy)-phenyl]pyrazolo[1,5-a]pyrimidin-7-yl)amino)cyclopentyl]methyl sulfamate; or
- I-120 (s.e.)-[(1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(2-methoxy-5-(trifluoromethylthio)-phenyl)pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl]methyl sulfamate.

25. The chemical entity of claim 7, wherein Z is optionally substituted naphthyl:



each of R^{S7.1a} and R^{S7.1b} is independently selected from (a) halo, (b1) C₁₋₄ aliphatic, (b2) R⁴⁻², (c) -OR⁴, (d) -N(R⁴)₂ and (e) -SR⁴;

R^{S8.1} is selected from (a) halo, (b1) C₁₋₄ aliphatic, (b2) R⁴⁻², (c) -OR⁴, (d) -N(R⁴)₂, (e) -SR⁴, (f) C₁₋₃ haloalkyl, (g) C₁₋₃ haloalkoxy, (h) -NO₂, (i) -CN, (j) -C(O)-R⁴, (k) -C(O)-OR⁴, (l) -C(O)-N(R⁴)₂, (m) -O-C(O)-R⁴, (n) -N(R⁴)-C(O)-R⁴, (o) -O-C(O)-OR⁴, (p) -O-C(O)-N(R⁴)₂, (q) -N(R⁴)-C(O)-OR⁴ and (r) -N(R⁴)-C(O)-N(R⁴)₂;

R^{S9.1} is selected from (a) halo, (b1) C₁₋₄ aliphatic, (b2) R⁴⁻², (c) -OR⁴, (d) -N(R⁴)₂, (e) -SR⁴, (f) C₁₋₃ haloalkyl, (g) C₁₋₃ haloalkoxy, (h) -NO₂, (i) -CN, (j) -C(O)-R⁴, (k) -C(O)-OR⁴, (l) -C(O)-N(R⁴)₂, (m) -O-C(O)-R⁴, (n) -N(R⁴)-C(O)-R⁴, (o) -O-C(O)-OR⁴, (p) -O-C(O)-N(R⁴)₂, (q) -N(R⁴)-C(O)-OR⁴ and (r) -N(R⁴)-C(O)-N(R⁴)₂;

(**aa**) C₃₋₆ carbocyclyl, (**cc**) 5- to 6-membered heterocyclyl, (**ee**) C₆ aryl and (**gg**) 5- to 6-membered heteroaryl;

wherein each of (**aa**) and (**cc**) is optionally substituted with 1-2 groups independently selected from (**a**) halo, (**b1**) C₁₋₂ aliphatic, (**b2**) R^{#2-1}, (**c**) -OR^{*2}, (**d**) -N(R^{*2})₂ and (**e**) -SR^{†2};

and wherein each of (**ee**) and (**gg**) is optionally substituted with 1-3 groups independently selected from (**a**) halo, (**b1**) C₁₋₂ aliphatic, (**b2**) R^{#2-1}, (**c**) -OR^{*2}, (**d**) -N(R^{*2})₂ and (**e**) -SR^{†2};

provided that at least 1 of R^{S7.1a}, R^{S7.1b}, R^{S8.1} and R^{S9.1} is -H.

26. The chemical entity of claim 25, wherein at least 2 of R^{S7.1a}, R^{S7.1b}, R^{S8.1} and R^{S9.1} are -H.

27. The chemical entity of any of claims 25-26, wherein:

R^{S9.1} is selected from (**a**) halo, (**b1**) C₁₋₄ aliphatic, (**b2**) R^{*4-2}, (**c**) -OR^{*4}, (**d**) -N(R^{*4})₂, (**e**) -SR^{†4}, (**f**) C₁₋₃ haloalkyl, (**g**) C₁₋₃ haloalkoxy, (**h**) -NO₂, (**i**) -CN, (**j**) -C(O)-R^{†4}, (**k**) -C(O)-OR^{*4}, (**l**) -C(O)-N(R^{*4})₂, (**m**) -O-C(O)-R^{†4}, (**n**) -N(R^{*4})-C(O)-R^{†4}, (**o**) -O-C(O)-OR^{*4}, (**p**) -O-C(O)-N(R^{*4})₂, (**q**) -N(R^{*4})-C(O)-OR^{*4} and (**r**) -N(R^{*4})-C(O)-N(R^{*4})₂.

28. The chemical entity of any of claims 25-27, wherein:

R^{S7.1a} is -H; and

R^{S7.1b} is selected from -H, (**a**) halo and (**b1**) C₁₋₂ aliphatic.

29. The chemical entity of any of claims 25-28, wherein:

each of R^{S7.1a} and R^{S7.1b} is -H;

R^{S8.1} is selected from -H, (**a**) halo and (**b1**) C₁₋₂ aliphatic; and

R^{S9.1} is selected from (**a**) halo, (**b1**) C₁₋₄ aliphatic, (**b2**) R^{*4-2}, (**c**) -OR^{*4}, (**d**) -N(R^{*4})₂, (**e**) -SR^{†4}, (**f**) C₁₋₃ haloalkyl, (**g**) C₁₋₃ haloalkoxy, (**h**) -NO₂, (**i**) -CN, (**j**) -C(O)-R^{†4}, (**k**) -C(O)-OR^{*4}, (**l**) -C(O)-N(R^{*4})₂, (**m**) -O-C(O)-R^{†4}, (**n**) -N(R^{*4})-C(O)-R^{†4}, (**o**) -O-C(O)-OR^{*4}, (**p**) -O-C(O)-N(R^{*4})₂, (**q**) -N(R^{*4})-C(O)-OR^{*4} and (**r**) -N(R^{*4})-C(O)-N(R^{*4})₂.

30. The chemical entity of claim 29, wherein:

each of $R^{S7.1a}$ and $R^{S7.1b}$ is -H;

$R^{S8.1}$ is -H; and

$R^{S9.1}$ is selected from (a) -F, -Cl, (b1) C_{1-2} alkyl, (c) $-OR^{*4}$, (d) $-N(R^{*2})_2$, (f) C_{1-2} haloalkyl, (g) C_{1-2} haloalkoxy and (k) $-C(O)-OR^{*2}$;

31. The chemical entity of any of claims 25-28, wherein:

each of $R^{S7.1a}$ and $R^{S7.1b}$ is -H; and

each of $R^{S8.1}$ and $R^{S9.1}$ is independently selected from -H, (a) halo and (b1) C_{1-2} aliphatic.

32. The chemical entity of claim 31, wherein:

each of $R^{S8.1}$ and $R^{S9.1}$ is independently selected from -H, (a) -F and -Cl.

33. The chemical entity of claim 25, wherein the compound is

I-002 (rac)-((1R,2R,3S,4R)-2,3-dihydroxy-4-[[2-(1-naphthyl)pyrazolo[1,5-a]pyrimidin-7-yl]amino]cyclopentyl)methyl rel-sulfamate;

I-009 (rac)-((1R,2R,3S,4R)-4-[[5-chloro-2-(1-naphthyl)pyrazolo[1,5-a]pyrimidin-7-yl]amino]-2,3-dihydroxycyclopentyl)methyl rel-sulfamate;

I-016 (rac)-((1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(naphthalen-2-yl)pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl)methyl rel-sulfamate;

I-096 (rac)-methyl rel-5-[7-(((1R,2S,3R,4R)-2,3-dihydroxy-4-[(sulfamoyloxy)methyl]cyclopentyl)amino)pyrazolo[1,5-a]pyrimidin-2-yl]-2-naphthoate;

I-097 (rac)-((1R,2R,3S,4R)-4-(2-(5-fluoronaphthalen-1-yl)pyrazolo[1,5-a]pyrimidin-7-ylamino)-2,3-dihydroxycyclopentyl)methyl rel-sulfamate;

I-098 (s.e.)-(1R,2R,3S,4R)-2,3-dihydroxy-4-[[2-(1-naphthyl)pyrazolo[1,5-a]pyrimidin-7-yl]amino]cyclopentyl)methyl sulfamate;

I-099 (rac)-rel-5-[7-(((1R,2S,3R,4R)-2,3-dihydroxy-4-[(sulfamoyloxy)methyl]cyclopentyl)amino)pyrazolo[1,5-a]pyrimidin-2-yl]-2-naphthoic acid

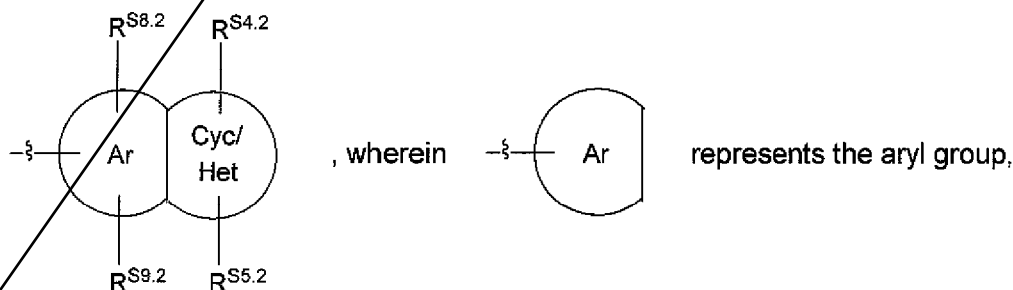
I-100 (s.e.)-(1R,2R,3S,4R)-4-(2-(4-fluoronaphthalen-1-yl)pyrazolo[1,5-a]pyrimidin-7-ylamino)-2,3-dihydroxycyclopentyl)methyl sulfamate;

I-104 (s.e.)-(1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(2-methoxynaphthalen-1-yl)pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl)methyl sulfamate;

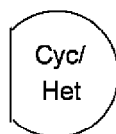
I-105 (s.e.)-(1R,2R,3S,4R)-4-(2-(5-fluoronaphthalen-1-yl)pyrazolo[1,5-a]pyrimidin-7-ylamino)-2,3-dihydroxycyclopentyl)methyl sulfamate;

- I-106 (s.e.)-((1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(4-methoxynaphthalen-1-yl)pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl)methyl sulfamate;
- I-107 (s.e.)-((1R,2R,3S,4R)-4-(2-(4-(dimethylamino)naphthalen-1-yl)pyrazolo[1,5-a]pyrimidin-7-ylamino)-2,3-dihydroxycyclopentyl)methyl sulfamate;
- I-108 (s.e.)-[(1R,2R,3S,4R)-4-[[2-(4-chloro-1-naphthyl)pyrazolo[1,5-a]pyrimidin-7-yl]amino]-2,3-dihydroxycyclopentyl]methyl sulfamate;
- I-109 (s.e.)-((1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(2-isopropoxynaphthalen-1-yl)pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl)methyl sulfamate;
- I-110 (s.e.)-((1R,2R,3S,4R)-4-(2-(2-(difluoromethoxy)naphthalen-1-yl)pyrazolo[1,5-a]pyrimidin-7-ylamino)-2,3-dihydroxycyclopentyl)methyl sulfamate;
- I-111 (s.e.)-((1R,2R,3S,4R)-4-(2-(6-(difluoromethyl)naphthalen-1-yl)pyrazolo[1,5-a]pyrimidin-7-ylamino)-2,3-dihydroxycyclopentyl)methyl sulfamate;
- I-112 (s.e.)-((1R,2R,3S,4R)-4-(2-(4-(difluoromethoxy)naphthalen-1-yl)pyrazolo[1,5-a]pyrimidin-7-ylamino)-2,3-dihydroxycyclopentyl)methyl sulfamate;
- I-113 (s.e.)-((1R,2R,3S,4R)-4-(2-(6-fluoronaphthalen-2-yl)pyrazolo[1,5-a]pyrimidin-7-ylamino)-2,3-dihydroxycyclopentyl)methyl sulfamate;
- I-114 (s.e.)-((1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(2-methylnaphthalen-1-yl)pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl)methyl sulfamate;
- I-115 (s.e.)-((1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(4-methylnaphthalen-1-yl)pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl)methyl sulfamate;
- I-116 (s.e.)-((1R,2R,3S,4R)-4-(2-(3-fluoronaphthalen-2-yl)pyrazolo[1,5-a]pyrimidin-7-ylamino)-2,3-dihydroxycyclopentyl)methyl sulfamate;
- I-117 (s.e.)-((1R,2R,3S,4R)-4-(2-(2,4-dichloronaphthalen-1-yl)pyrazolo[1,5-a]pyrimidin-7-ylamino)-2,3-dihydroxycyclopentyl)methyl sulfamate;
- I-118 (s.e.)-((1R,2R,3S,4R)-4-(2-(4-fluoronaphthalen-2-yl)pyrazolo[1,5-a]pyrimidin-7-ylamino)-2,3-dihydroxycyclopentyl)methyl sulfamate; or
- I-119 (s.e.)-((1R,2R,3S,4R)-4-(2-(1-fluoronaphthalen-2-yl)pyrazolo[1,5-a]pyrimidin-7-ylamino)-2,3-dihydroxycyclopentyl)methyl sulfamate.

34. The chemical entity of any of claims 1-6, wherein **Z** is optionally substituted fused aryl:



and



represents the carbocycle or heterocycle;

$R^{S4.2}$ is selected from -H, (a) halo, (b1) C_{1-4} aliphatic, (b2) $R^{#4-2}$, (c) $-OR^{*4}$, (d) $-N(R^{*4})_2$ and (e) $-SR^{+4}$;

$R^{S5.2}$ is selected from -H, (a) halo, (b1) C_{1-4} aliphatic, (b2) $R^{#4-2}$, (c) $-OR^{*4}$, (d) $-N(R^{*4})_2$, (e) $-SR^{+4}$, (f) C_{1-3} haloalkyl, (h) $-NO_2$, (i) $-CN$, (j) $-C(O)-R^{+4}$, (k) $-C(O)-OR^{*4}$, (l) $-C(O)-N(R^{*4})_2$, (m) $-O-C(O)-R^{+4}$, (n) $-N(R^{*4})-C(O)-R^{+4}$, (o) $-O-C(O)-OR^{*4}$, (p) $-O-C(O)-N(R^{*4})_2$, (q) $-N(R^{*4})-C(O)-OR^{*4}$ and (r) $-N(R^{*4})-C(O)-N(R^{*4})_2$;

$R^{S8.2}$ is selected from -H, (a) halo, (b1) C_{1-4} aliphatic, (b2) $R^{#4-2}$, (c) $-OR^{*4}$, (d) $-N(R^{*4})_2$, (e) $-SR^{+4}$, (f) C_{1-3} haloalkyl, (g) C_{1-3} haloalkoxy, (h) $-NO_2$, (i) $-CN$, (j) $-C(O)-R^{+4}$, (k) $-C(O)-OR^{*4}$, (l) $-C(O)-N(R^{*4})_2$, (m) $-O-C(O)-R^{+4}$, (n) $-N(R^{*4})-C(O)-R^{+4}$, (o) $-O-C(O)-OR^{*4}$, (p) $-O-C(O)-N(R^{*4})_2$, (q) $-N(R^{*4})-C(O)-OR^{*4}$ and (r) $-N(R^{*4})-C(O)-N(R^{*4})_2$;

$R^{S9.2}$ is selected from -H, (a) halo, (b1) C_{1-4} aliphatic, (b2) $R^{#4-2}$, (c) $-OR^{*4}$, (d) $-N(R^{*4})_2$, (e) $-SR^{+4}$, (f) C_{1-3} haloalkyl, (g) C_{1-3} haloalkoxy, (h) $-NO_2$, (i) $-CN$, (j) $-C(O)-R^{+4}$, (k) $-C(O)-OR^{*4}$, (l) $-C(O)-N(R^{*4})_2$, (m) $-O-C(O)-R^{+4}$, (n) $-N(R^{*4})-C(O)-R^{+4}$, (o) $-O-C(O)-OR^{*4}$, (p) $-O-C(O)-N(R^{*4})_2$, (q) $-N(R^{*4})-C(O)-OR^{*4}$ and (r) $-N(R^{*4})-C(O)-N(R^{*4})_2$, (aa) C_{3-6} carbocyclyl, (cc) 5- to 6-membered heterocyclyl, (ee) C_6 aryl and (gg) 5- to 6-membered heteroaryl;

wherein each of (aa) and (cc) is optionally substituted with 1-2 groups independently selected from (a) halo, (b1) C_{1-2} aliphatic, (b2) $R^{#2-1}$, (c) $-OR^{*2}$, (d) $-N(R^{*2})_2$ and (e) $-SR^{+2}$;

and wherein each of (ee) and (gg) is optionally substituted with 1-3 groups independently selected from (a) halo, (b1) C_{1-4} aliphatic, (b2) $R^{#4-2}$, (c) $-OR^{*4}$, (d) $-N(R^{*4})_2$ and (e) $-SR^{+4}$.

35. The chemical entity of claim 34, wherein:

the aryl group is a C_6 aryl group;

the carbocycle is a C_{5-6} carbocycle; and

the **heterocycle** is a 5- to 6-membered heterocycle having one ring heteroatom selected from -O-, -N(R^{*1})- and -S-.

36. The chemical entity of any of claims 34-35, wherein:

the **carbocycle** is a saturated C₅₋₆ carbocycle; and

the **heterocycle** is a saturated 5- to 6-membered heterocycle wherein the ring heteroatom is -O-.

37. The chemical entity of any of claims 34-36, wherein Z is optionally substituted indanyl, 2,3-dihydrobenzofuranyl or 1,3-dihydroisobenzofuranyl.

38. The chemical entity of any of claims 34-37, wherein:

R^{S4.2} is selected from -H, (a) -F, Cl, (b1) C₁₋₂ aliphatic, (b2) R^{^2-1}, (c) -OR^{*2}, (d) -N(R^{*2})₂ and (e) -SR^{†2};

R^{S5.2} is selected from -H, (a) halo, (b1) C₁₋₂ aliphatic, (b2) R^{^2-1}, (c) -OR^{*2}, (d) -N(R^{*2})₂, (e) -SR^{†2} and (f) -CF₃;

R^{S8.2} is -H; and

R^{S9.2} is selected from -H, (a) -F, Cl, (b1) C₁₋₂ aliphatic, (b2) R^{^2-1}, (c) -OR^{*2}, (d) -N(R^{*2})₂, (e) -SR^{†2}, (f) -CF₃ and (g) -OCF₃.

39. The chemical entity of claim 38, wherein:

each of R^{S4.2} and R^{S5.2} is independently selected from -H, (b1) C₁₋₂ aliphatic and (b2) R^{^2-1};
and

each of R^{S8.2} and R^{S9.2} is -H.

40. The chemical entity of claim 39, wherein:

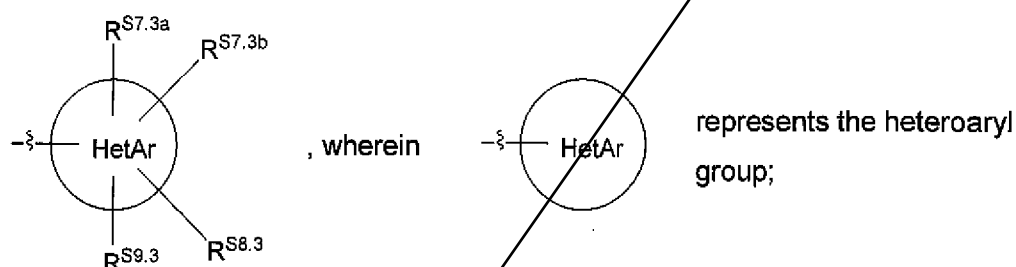
each of R^{S4.2} and R^{S5.2} is methyl; and

each of R^{S8.2} and R^{S9.2} is -H.

41. The chemical entity of claim 34, wherein the compound is

- I-023 (rac)-((1R,2R,3S,4R)-4-(2-(3,3-dimethyl-2,3-dihydrobenzofuran-7-yl)pyrazolo[1,5-a]pyrimidin-7-ylamino)-2,3-dihydroxycyclopentyl)methyl rel-sulfamate;
- I-026 (rac)-((1R,2R,3S,4R)-4-(2-(3,3-dimethyl-2,3-dihydrobenzofuran-5-yl)pyrazolo[1,5-a]pyrimidin-7-ylamino)-2,3-dihydroxycyclopentyl)methyl rel-sulfamate;
- I-041 (rac)-((1R,2R,3S,4R)-4-(2-(3,3-dimethyl-2,3-dihydro-1H-inden-5-yl)pyrazolo[1,5-a]pyrimidin-7-ylamino)-2,3-dihydroxycyclopentyl)methyl rel-sulfamate; or
- I-053 (rac)-((1R,2R,3S,4R)-4-(2-(3,3-dimethyl-1,3-dihydroisobenzofuran-5-yl)pyrazolo[1,5-a]pyrimidin-7-ylamino)-2,3-dihydroxycyclopentyl)methyl rel-sulfamate.

42. The chemical entity of any of claims 1-6, wherein Z is optionally substituted heteroaryl:



each of $R^{S7.3a}$ and $R^{S7.3b}$ is independently selected from (a) halo, (b1) C_{1-4} aliphatic, (b2) R^{*4-2} , (c) $-OR^{*4}$, (d) $-N(R^{*4})_2$ and (e) $-SR^{*4}$;

$R^{S8.3}$ is selected from (a) halo, (b1) C_{1-4} aliphatic, (b2) R^{*4-2} , (c) $-OR^{*4}$, (d) $-N(R^{*4})_2$, (e) $-SR^{*4}$, (f) C_{1-3} haloalkyl, (g) C_{1-3} haloalkoxy, (h) $-NO_2$, (i) $-CN$, (j) $-C(O)-R^{*4}$, (k) $-C(O)-OR^{*4}$, (l) $-C(O)-N(R^{*4})_2$, (m) $-O-C(O)-R^{*4}$, (n) $-N(R^{*4})-C(O)-R^{*4}$, (o) $-O-C(O)-OR^{*4}$, (p) $-O-C(O)-N(R^{*4})_2$, (q) $-N(R^{*4})-C(O)-OR^{*4}$ and (r) $-N(R^{*4})-C(O)-N(R^{*4})_2$;

$R^{S9.3}$ is selected from (a) halo, (b1) C_{1-4} aliphatic, (b2) R^{*4-2} , (c) $-OR^{*4}$, (d) $-N(R^{*4})_2$, (e) $-SR^{*4}$, (f) C_{1-3} haloalkyl, (g) C_{1-3} haloalkoxy, (h) $-NO_2$, (i) $-CN$, (j) $-C(O)-R^{*4}$, (k) $-C(O)-OR^{*4}$, (l) $-C(O)-N(R^{*4})_2$, (m) $-O-C(O)-R^{*4}$, (n) $-N(R^{*4})-C(O)-R^{*4}$, (o) $-O-C(O)-OR^{*4}$, (p) $-O-C(O)-N(R^{*4})_2$, (q) $-N(R^{*4})-C(O)-OR^{*4}$ and (r) $-N(R^{*4})-C(O)-N(R^{*4})_2$, (aa) C_{3-6} carbocyclyl, (cc) 5- to 6-membered heterocyclyl, (ee) C_6 aryl and (gg) 5- to 6-membered heteroaryl;

wherein each of (aa) and (cc) is optionally substituted with 1-2 groups independently selected from (a) halo, (b1) C_{1-2} aliphatic, (b2) R^{*2-1} , (c) $-OR^{*2}$, (d) $-N(R^{*2})_2$ and (e) $-SR^{*2}$;

and wherein each of **(ee)** and **(gg)** is optionally substituted with 1-3 groups independently selected from **(a)** halo, **(b1)** C₁₋₂ aliphatic, **(b2)** R^{#2-1}, **(c)** -OR^{*2}, **(d)** -N(R^{*2})₂ and **(e)** -SR^{†2};

provided that at least 1 of R^{S7.3a}, R^{S7.3b}, R^{S8.3} and R^{S9.3} is -H.

- 43.** The chemical entity of claim 42, wherein **Z** is optionally substituted 5- to 10-membered heteroaryl having 1 or 2 ring heteroatoms, each independently selected from O, S and NR^{*3}.
- 44.** The chemical entity of claim 42, wherein **Z** is optionally substituted thienyl, oxazolyl, thiazolyl, pyridyl, pyrimidinyl, benzo[b]thiophenyl, benzofuranyl, 1*H*-indolyl, quinolinyl or isoquinolinyl.
- 45.** The chemical entity of any of claims 42-44, wherein at least 2 of R^{S7.3a}, R^{S7.3b}, R^{S8.3} and R^{S9.3} are -H.
- 46.** The chemical entity of any of claims 42-45, wherein:
R^{S7.3a} is -H; and
R^{S8.3} is selected from -H, **(a)** halo, **(b1)** C₁₋₄ aliphatic and **(f)** C₁₋₃ haloalkyl.
- 47.** The chemical entity of claim 46, wherein:
R^{S7.3a} is -H;
R^{S7.3b} is -H;
R^{S8.3} is selected from -H, **(a)** halo, **(b1)** C₁₋₄ aliphatic and **(f)** C₁₋₃ haloalkyl; and
R^{S9.3} is selected from -H, **(a)** halo, **(b1)** C₁₋₄ aliphatic, **(f)** C₁₋₃ haloalkyl and **(ee)** phenyl.
- 48.** The chemical entity of claim 47, wherein:
R^{S8.3} is selected from -H, **(a)** halo, **(b1)** C₁₋₂ alkyl and **(f)** -CF₃.
- 49.** The chemical entity of claim 47 or claim 48, wherein:
R^{S7.3a} is -H;

$R^{S7.3b}$ is -H;

$R^{S8.3}$ is -H or (b1) methyl; and

$R^{S9.3}$ is selected from -H, (a) halo, (b1) C_{1-4} alkyl, (f) C_{1-3} haloalkyl and (ee) phenyl.

50. The chemical entity of claim 49, wherein:

$R^{S9.3}$ is selected from -H, (a) -F, -Cl, (b1) methyl, ethyl, ^tBu (f) -CF₃ and (ee) phenyl.

51. The chemical entity of any of claims 42-50, wherein:

each of $R^{S7.3a}$ and $R^{S7.3b}$ is -H; and

$R^{S8.3}$ is -H.

52. The chemical entity of claim 42, wherein the compound is

I-011 (rac)-((1R,2R,3S,4R)-4-(5-chloro-2-(pyridin-2-yl)pyrazolo[1,5-a]pyrimidin-7-ylamino)-2,3-dihydroxycyclopentyl)methyl rel-sulfamate;

I-012 (rac)-[(1R,2R,3S,4R)-2,3-dihydroxy-4-[[2-(pyridin-2-yl)pyrazolo[1,5-a]pyrimidin-7-yl]amino]cyclopentyl]methyl rel-sulfamate;

I-017 (rac)-((1R,2R,3S,4R)-2,3-Dihydroxy-4-((2-(quinolin-8-yl)pyrazolo[1,5-a]pyrimidin-7-yl)amino)cyclopentyl)methyl rel-sulfamate;

I-018 (rac)-((1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(isoquinolin-4-yl)pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl)methyl rel-sulfamate;

I-022 (rac)-((1R,2R,3S,4R)-4-(2-(benzo[b]thiophen-3-yl)pyrazolo[1,5-a]pyrimidin-7-ylamino)-2,3-dihydroxycyclopentyl)methyl rel-sulfamate;

I-024 (rac)-((1R,2R,3S,4R)-4-(2-(1H-indol-2-yl)pyrazolo[1,5-a]pyrimidin-7-ylamino)-2,3-dihydroxycyclopentyl)methyl rel-sulfamate;

I-025 (rac)-((1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(quinolin-3-yl)pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl)methyl rel-sulfamate;

I-027 (rac)-((1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(isoquinolin-5-yl)pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl)methyl rel-sulfamate;

I-031 (rac)-[(1R,2R,3S,4R)-2,3-dihydroxy-4-[[2-(4-phenyl-1,3-thiazol-2-yl)pyrazolo[1,5-a]pyrimidin-7-yl]amino]cyclopentyl]methyl rel-sulfamate;

I-032 (rac)-[(1R,2R,3S,4R)-2,3-dihydroxy-4-[[2-(1H-indol-3-yl)pyrazolo[1,5-a]pyrimidin-7-yl]amino]cyclopentyl]methyl rel-sulfamate;

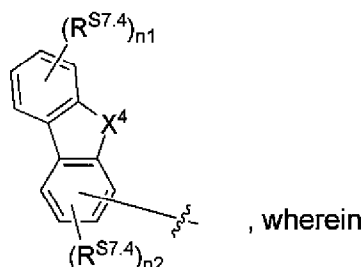
I-033 (rac)-((1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(5-(trifluoromethyl)quinolin-8-yl)pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl)methyl rel-sulfamate;

I-034 (rac)-((1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(quinolin-6-yl)pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl)methyl rel-sulfamate;

- I-038 (rac)-[(1R,2R,3S,4R)-2,3-dihydroxy-4-[[2-(5-methyl-2-phenyl-1,3-thiazol-4-yl)pyrazolo[1,5-a]pyrimidin-7-yl]amino]cyclopentyl]methyl rel-sulfamate;
- I-039 (rac)-((1R,2R,3S,4R)-4-(2-(7-chloroquinolin-4-yl)pyrazolo[1,5-a]pyrimidin-7-ylamino)-2,3-dihydroxycyclopentyl)methyl rel-sulfamate;
- I-042 (rac)-((1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(quinolin-2-yl)pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl)methyl rel-sulfamate;
- I-043 (rac)-((1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(quinolin-7-yl)pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl)methyl rel-sulfamate;
- I-045 (rac)-((1R,2R,3S,4R)-4-((2-(Benzo[b]thiophen-7-yl)pyrazolo[1,5-a]pyrimidin-7-yl)amino)-2,3-dihydroxycyclopentyl)methyl rel-sulfamate;
- I-049 (rac)-((1R,2R,3S,4R)-4-(2-(benzofuran-3-yl)pyrazolo[1,5-a]pyrimidin-7-ylamino)-2,3-dihydroxycyclopentyl)methyl rel-sulfamate;
- I-052 (rac)-((1R,2R,3S,4R)-4-(2-(6-tert-butylpyridin-2-yl)pyrazolo[1,5-a]pyrimidin-7-ylamino)-2,3-dihydroxycyclopentyl)methyl rel-sulfamate;
- I-054 (rac)-[(1R,2R,3S,4R)-4-[[2-(5-chloro-1H-indol-3-yl)pyrazolo[1,5-a]pyrimidin-7-yl]amino]-2,3-dihydroxycyclopentyl]methyl rel-sulfamate;
- I-055 (rac)-[(1R,2R,3S,4R)-4-[[2-(6-chloro-1H-indol-3-yl)pyrazolo[1,5-a]pyrimidin-7-yl]amino]-2,3-dihydroxycyclopentyl]methyl rel-sulfamate;
- I-059 (rac)-((1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(2-(trifluoromethyl)pyridin-4-yl)pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl)methyl rel-sulfamate;
- I-060 (rac)-((1R,2R,3S,4R)-2,3-Dihydroxy-4-((2-(5-(trifluoromethyl)thiophen-2-yl)pyrazolo[1,5-a]pyrimidin-7-yl)amino)cyclopentyl)methyl rel-sulfamate;
- I-061 (rac)-((1R,2R,3S,4R)-4-((2-(Benzo[b]thiophen-4-yl)pyrazolo[1,5-a]pyrimidin-7-yl)amino)-2,3-dihydroxycyclopentyl)methyl rel-sulfamate;
- I-064 (rac)-((1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(6-(trifluoromethyl)pyridin-2-yl)pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl)methyl rel-sulfamate;
- I-067 (rac)-[(1R,2R,3S,4R)-2,3-dihydroxy-4-[[2-(2-phenyl-1,3-oxazol-5-yl)pyrazolo[1,5-a]pyrimidin-7-yl]amino]cyclopentyl]methyl rel-sulfamate;
- I-071 (rac)-((1R,2R,3S,4R)-4-(2-(5-chlorobenzo[b]thiophen-3-yl)pyrazolo[1,5-a]pyrimidin-7-ylamino)-2,3-dihydroxycyclopentyl)methyl rel-sulfamate;
- I-074 (rac)-[(1R,2R,3S,4R)-2,3-dihydroxy-4-[[2-(1H-indol-5-yl)pyrazolo[1,5-a]pyrimidin-7-yl]amino]cyclopentyl]methyl rel-sulfamate;
- I-075 (rac)-((1R,2R,3S,4R)-4-(2-(1H-indol-4-yl)pyrazolo[1,5-a]pyrimidin-7-ylamino)-2,3-dihydroxycyclopentyl)methyl rel-sulfamate;
- I-081 (rac)-((1R,2R,3S,4R)-4-(2-(5-fluorobenzo[b]thiophen-3-yl)pyrazolo[1,5-a]pyrimidin-7-ylamino)-2,3-dihydroxycyclopentyl)methyl rel-sulfamate;
- I-086 (rac)-((1R,2R,3S,4R)-4-(2-(benzofuran-2-yl)pyrazolo[1,5-a]pyrimidin-7-ylamino)-2,3-dihydroxycyclopentyl)methyl rel-sulfamate;
- I-088 (rac)-((1R,2R,3S,4R)-4-(2-(6-chlorobenzo[b]thiophen-2-yl)pyrazolo[1,5-a]pyrimidin-7-ylamino)-2,3-dihydroxycyclopentyl)methyl rel-sulfamate;

- I-091 (rac)-((1R,2R,3S,4R)-4-(2-(6-chlorobenzo[b]thiophen-3-yl)pyrazolo[1,5-a]pyrimidin-7-ylamino)-2,3-dihydroxycyclopentyl)methyl rel-sulfamate;
- I-092 (rac)-((1R,2R,3S,4R)-4-(2-(5-chlorobenzofuran-3-yl)pyrazolo[1,5-a]pyrimidin-7-ylamino)-2,3-dihydroxycyclopentyl)methyl rel-sulfamate;
- I-094 (rac)-((1R,2R,3S,4R)-4-(2-(5-ethylbenzo[b]thiophen-3-yl)pyrazolo[1,5-a]pyrimidin-7-ylamino)-2,3-dihydroxycyclopentyl)methyl rel-sulfamate; or
- I-095 (rac)-((1R,2R,3S,4R)-4-(2-(5-ethylbenzo[b]thiophen-2-yl)pyrazolo[1,5-a]pyrimidin-7-ylamino)-2,3-dihydroxycyclopentyl)methyl rel-sulfamate.

53. The chemical entity of any of claims 1-6, wherein **Z** is



X⁴ is -O-, -N(R^{*2})-, -S- or -C(O)-;

each of **n1** and **n2** is independently 0, 1 or 2,

provided that **n1** + **n2** = 0, 1 or 2; and

each instance of **R^{S7.4}** is independently selected from (a) halo, (b1) C₁₋₂ aliphatic, (b2) R^{#2-1}, (c) -OR^{*2}, (d) -N(R^{*2})₂ and (e) -SR^{†2}.

54. The chemical entity of claim 53 wherein

each instance of **R^{S7.4}** is independently selected from (a) -F, -Cl, -Br, (b1) C₁₋₂ aliphatic, (b2) R^{#2-1}, (c) -OR^{*2} and (d) -N(R^{*2})₂,

wherein each instance of **R^{#2-1}** is independently C₁₋₂ alkyl unsubstituted or substituted with 1 substituent selected from (a) -F, -Cl, (c) -OR^{*2} and (d) -N(R^{*2})₂.

55. The chemical entity of any of claims 53-54, wherein **X⁴** is -O-, -NH-, -S- or -C(O)-.

56. The chemical entity of any of claims 53-55, wherein **n1** + **n2** = 0 or 1.

57. The chemical entity of claim 56, wherein each of n1 and n2 is 0.

58. The chemical entity of claim 53, wherein the compound is

- I-010 (rac)-((1R,2R,3S,4R)-4-(2-(dibenzo[b,d]furan-4-yl)pyrazolo[1,5-a]pyrimidin-7-ylamino)-2,3-dihydroxycyclopentyl)methyl rel-sulfamate;
- I-019 (rac)-((1R,2R,3S,4R)-4-(2-(dibenzo[b,d]furan-2-yl)pyrazolo[1,5-a]pyrimidin-7-ylamino)-2,3-dihydroxycyclopentyl)methyl rel-sulfamate;
- I-037 (rac)-[(1R,2R,3S,4R)-4-([2-(9H-carbazol-3-yl)pyrazolo[1,5-a]pyrimidin-7-yl]amino)-2,3-dihydroxycyclopentyl)methyl rel-sulfamate;
- I-056 (rac)-((1R,2R,3S,4R)-4-((2-(Dibenzo[b,d]thiophen-4-yl)pyrazolo[1,5-a]pyrimidin-7-yl)amino)-2,3-dihydroxycyclopentyl)methyl rel-sulfamate;
- I-062 (rac)-[(1R,2R,3S,4R)-4-([2-(9H-carbazol-2-yl)pyrazolo[1,5-a]pyrimidin-7-yl]amino)-2,3-dihydroxycyclopentyl)methyl rel-sulfamate;
- I-085 (rac)-((1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(9-oxo-9H-fluoren-2-yl)pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl)methyl rel-sulfamate;
- I-093 (rac)-((1R,2R,3S,4R)-4-(2-(dibenzo[b,d]furan-3-yl)pyrazolo[1,5-a]pyrimidin-7-ylamino)-2,3-dihydroxycyclopentyl)methyl rel-sulfamate; or
- I-103 (rac)-((1R,2R,3S,4R)-4-(2-(dibenzo[b,d]furan-4-yl)pyrazolo[1,5-a]pyrimidin-7-ylamino)-2,3-dihydroxycyclopentyl)methyl rel-sulfamate.

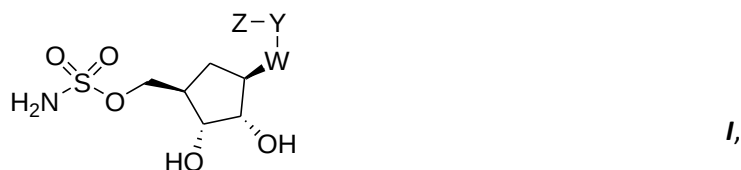
59. Crystalline Form 1 anhydrous (s.e.)-((1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(3-(trifluoromethylthio)phenyl)pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl)methyl sulfamate.
60. Substantially crystalline Form 1 anhydrous (s.e.)-((1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(3-(trifluoromethylthio)phenyl)pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl)methyl sulfamate.
61. At least 80% by weight crystalline Form 1 anhydrous (s.e.)-((1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(3-(trifluoromethylthio)phenyl)pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl)methyl sulfamate.
62. At least 90% by weight crystalline Form 1 anhydrous (s.e.)-((1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(3-(trifluoromethylthio)phenyl)pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl)methyl sulfamate.

63. At least 95% by weight crystalline Form 1 anhydrous (s.e.)-((1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(3-(trifluoromethylthio)phenyl)pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl)methyl sulfamate.
64. Crystalline Form 2 monohydrated (s.e.)-((1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(3-(trifluoromethylthio)phenyl)pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl)methyl sulfamate.
65. Substantially crystalline Form 2 monohydrated (s.e.)-((1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(3-(trifluoromethylthio)phenyl)pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl)methyl sulfamate.
66. At least 80% by weight crystalline Form 2 monohydrated (s.e.)-((1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(3-(trifluoromethylthio)phenyl)pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl)methyl sulfamate.
67. At least 90% by weight crystalline Form 2 monohydrated (s.e.)-((1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(3-(trifluoromethylthio)phenyl)pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl)methyl sulfamate.
68. At least 95% by weight crystalline Form 2 monohydrated (s.e.)-((1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(3-(trifluoromethylthio)phenyl)pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl)methyl sulfamate.
69. A pharmaceutical composition comprising, the chemical entity of any of claims 1-68, and a pharmaceutically acceptable carrier.
70. A pharmaceutical composition comprising, crystalline Form 1 anhydrous (s.e.)-((1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(3-(trifluoromethylthio)phenyl)pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl)methyl sulfamate, and a pharmaceutically acceptable carrier.
71. A pharmaceutical composition comprising, crystalline Form 2 monohydrated (s.e.)-((1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(3-(trifluoromethylthio)phenyl)pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl)methyl sulfamate, and a pharmaceutically acceptable carrier.

- 72.** A method of treating a disease responsive to UAE inhibition in a subject in need of such treatment comprising, administering to the subject a pharmaceutical composition of any of claims 69-71.
- 73.** A method of treating cancer in a subject in need of such treatment comprising, administering to the subject a therapeutically effective amount of the pharmaceutical composition of any of claims 69-71.
- 74.** The method of claim 73 wherein the cancer is lung cancer, ovarian cancer, colon cancer, breast cancer or lymphoma.
- 75.** A chemical entity of any of claims 1-68 for use in treating cancer in a patient in need thereof.
- 76.** The use of the chemical entity of claim 75 wherein the cancer is lung cancer, ovarian cancer, colon cancer, breast cancer, or lymphoma.
- 77.** Use of a chemical entity of any of claims 1-68 for the preparation of a medicament for treating cancer.
- 78.** The use of the chemical entity of claim 77, wherein the cancer is lung cancer, ovarian cancer, colon cancer, breast cancer, or lymphoma.

WHAT IS CLAIMED IS:

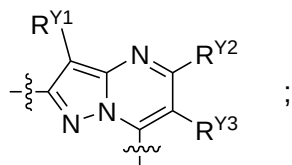
1. A chemical entity comprising a compound of Formula I:



or a pharmaceutically acceptable salt thereof, wherein:

W is -N(R^{*3})-;

Y is

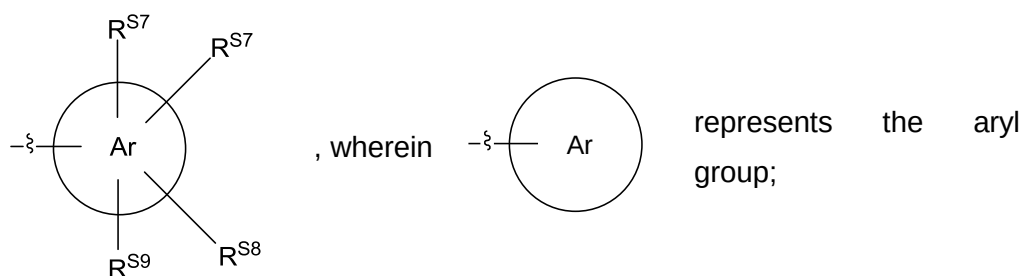


each of **R^{Y1}**, **R^{Y2}** and **R^{Y3}** is independently selected from -H, **(a)** halo,

(b1) C₁₋₃ aliphatic, **(b2)** R^{#2-1}, **(c)** -OR^{*3}, **(d)** -N(R^{*3})₂, **(e)** -SR^{†3}, **(f)** C₁₋₂ haloalkyl and **(g)** C₁₋₂ haloalkoxy;

Z is

optionally substituted aryl:



each instance of **R^{S1}** is independently selected from -H, **(a)** halo, **(c)** -OR^{*2}, **(d)** -N(R^{*2})₂ and **(e)** -SR^{†2};

each instance of **R^{S2}** is independently selected from -H, **(a)** halo, **(c)** -OR^{*4}, **(d)** -N(R^{*4})₂, **(e)** -SR^{†4}, **(h)** -NO₂, **(i)** -CN, **(j)** -C(O)-R^{†4}, **(k)** -C(O)-OR^{*4}, **(l)** -C(O)-N(R^{*4})₂, **(m)** -O-C(O)-R^{†4}, **(n)** -N(R^{*4})-C(O)-R^{†4}, **(o)** -O-C(O)-OR^{*4}, **(p)** -O-C(O)-N(R^{*4})₂, **(q)** -N(R^{*4})-C(O)-OR^{*4} and **(r)** -N(R^{*4})-C(O)-N(R^{*4})₂;

each instance of R^{S7} is independently selected from -H, **(a)** halo, **(b1)** C_{1-4} aliphatic, **(b2)** $R^{#4-2}$, **(c)** $-OR^{*4}$, **(d)** $-N(R^{*4})_2$ and **(e)** $-SR^{\dagger4}$;

each instance of R^{S8} is independently selected from -H, **(a)** halo, **(b1)** C_{1-4} aliphatic, **(b2)** $R^{#4-2}$, **(c)** $-OR^{*4}$, **(d)** $-N(R^{*4})_2$, **(e)** $-SR^{\dagger4}$, **(f)** C_{1-3} haloalkyl, **(g1)** C_{1-3} haloalkoxy, **(g2)** C_{1-3} haloalkylthio, **(h)** $-NO_2$, **(i)** $-CN$, **(j)** $-C(O)-R^{\dagger4}$, **(k)** $-C(O)-OR^{*4}$, **(l)** $-C(O)-N(R^{*4})_2$, **(m)** $-O-C(O)-R^{\dagger4}$, **(n)** $-N(R^{*4})-C(O)-R^{\dagger4}$, **(o)** $-O-C(O)-OR^{*4}$, **(p)** $-O-C(O)-N(R^{*4})_2$, **(q)** $-N(R^{*4})-C(O)-OR^{*4}$ and **(r)** $-N(R^{*4})-C(O)-N(R^{*4})_2$;

each instance of R^{S9} is independently selected from -H, **(a)** halo, **(b1)** C_{1-6} aliphatic, **(b2)** $R^{#6-3}$, **(c)** $-OR^{*6}$, **(d)** $-N(R^{*6})_2$, **(e)** $-SR^{\dagger6}$, **(f)** C_{1-3} haloalkyl, **(g1)** C_{1-3} haloalkoxy, **(g2)** C_{1-3} haloalkylthio, **(h)** $-NO_2$, **(i)** $-CN$, **(j)** $-C(O)-R^{\dagger6}$, **(k)** $-C(O)-OR^{*6}$, **(l)** $-C(O)-N(R^{*6})_2$, **(m)** $-O-C(O)-R^{\dagger6}$, **(n)** $-N(R^{*6})-C(O)-R^{\dagger6}$, **(o)** $-O-C(O)-OR^{*6}$, **(p)** $-O-C(O)-N(R^{*6})_2$, **(q)** $-N(R^{*6})-C(O)-OR^{*6}$, **(r)** $-N(R^{*6})-C(O)-N(R^{*6})_2$, **(s)** $-Si(R^{\dagger2})_3$, **(aa)** C_{3-8} carbocyclyl, **(bb)** $-A-(C_{3-8} \text{ carbocyclyl})$, **(cc)** 5- to 10-membered heterocyclyl, **(dd)** $-A-(5\text{- to }10\text{-membered heterocyclyl})$, **(ee)** C_{6-10} aryl, **(ff)** $-A-(C_{6-10} \text{ aryl})$, **(gg)** 5- to 10-membered heteroaryl and **(hh)** $-A-(5\text{- to }10\text{-membered heteroaryl})$;

wherein each instance of **A** is independently selected from C_{1-3} alkylene, $C_{0-3,0-3}$ heteroalkylene, $-O-$, $-S-$, $-N(R^{*1})-$ and $-C(O)-$;

and wherein each of **(aa)-(dd)** is optionally substituted with 1-3 groups independently selected from **(a)** halo, **(b1)** C_{1-2} aliphatic, **(b2)** $R^{#2-1}$, **(c)** $-OR^{*2}$, **(d)** $-N(R^{*2})_2$ and **(e)** $-SR^{\dagger2}$;

and wherein each of **(ee)-(hh)** is optionally substituted with 1-3 groups independently selected from **(a)** halo, **(b1)** C_{1-4} aliphatic, **(b2)** $R^{#4-2}$, **(c)** $-OR^{*4}$, **(d)** $-N(R^{*4})_2$ and **(e)** $-SR^{\dagger4}$;

each instance of R^{*6} is independently -H or C_{1-6} alkyl;

each instance of R^{*4} is independently -H or C_{1-4} alkyl;

each instance of R^{*3} is independently -H or C_{1-3} alkyl;

each instance of R^{*2} is independently -H or C_{1-2} alkyl;

each instance of R^{*1} is independently -H or methyl;

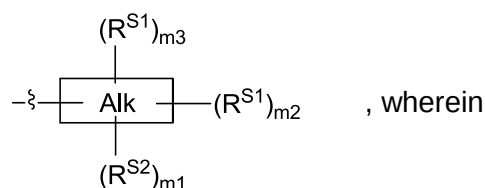
each instance of $R^{\dagger6}$ is independently C_{1-6} alkyl;

each instance of $R^{\dagger4}$ is independently C_{1-4} alkyl;

each instance of $R^{\dagger3}$ is independently C_{1-3} alkyl;

each instance of R^{12} is independently C_{1-2} alkyl;

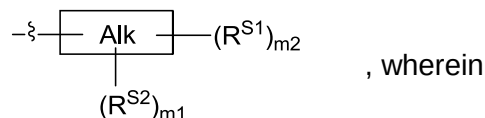
each instance of R^{6-3} is
independently



$-\zeta - \boxed{\text{Alk}}$ represents C_{1-6} alkyl; and

each of **m1**, **m2** and **m3** is independently 0 or 1;

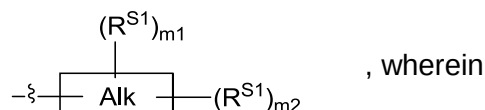
each instance of R^{4-2} is
independently



$-\zeta - \boxed{\text{Alk}}$ represents C_{1-4} alkyl; and

each of **m1** and **m2** is independently 0 or 1;

each instance of R^{4-2} is
independently



$-\zeta - \boxed{\text{Alk}}$ represents C_{1-4} alkyl; and

each of **m1** and **m2** is independently 0 or 1; and

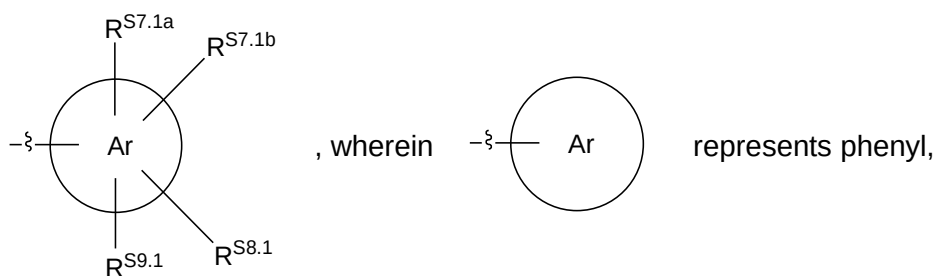
each instance of R^{2-1} is
independently



$-\zeta - \boxed{\text{Alk}}$ represents C_{1-2} alkyl; and

m1 is 0 or 1.

2. The chemical entity of claim 1, wherein **W** is -NH-.
3. The chemical entity of claim 1, wherein each of R^{Y1} , R^{Y2} and R^{Y3} is independently selected from -H, **(a)** halo and **(b1)** C_{1-3} alkyl.
4. The chemical entity of claim 3, wherein each of R^{Y1} , R^{Y2} , and R^{Y3} is -H.
5. The chemical entity of claim 1, wherein **Z** is optionally substituted phenyl:



each of $R^{S7.1a}$ and $R^{S7.1b}$ is independently selected from -H, **(a)** halo, **(b1)** C_{1-4} aliphatic, **(b2)** $R^{#4-2}$, **(c)** $-OR^{*4}$, **(d)** $-N(R^{*4})_2$ and **(e)** $-SR^{\dagger4}$;

$R^{S8.1}$ is selected from -H, **(a)** halo, **(b1)** C_{1-4} aliphatic, **(b2)** $R^{#4-2}$, **(c)** $-OR^{*4}$, **(d)** $-N(R^{*4})_2$, **(e)** $-SR^{\dagger4}$, **(f)** C_{1-3} haloalkyl, **(g1)** C_{1-3} haloalkoxy, **(g2)** C_{1-3} haloalkylthio, **(h)** $-NO_2$, **(i)** $-CN$, **(j)** $-C(O)-R^{\dagger4}$, **(k)** $-C(O)-OR^{*4}$, **(l)** $-C(O)-N(R^{*4})_2$, **(m)** $-O-C(O)-R^{\dagger4}$, **(n)** $-N(R^{*4})-C(O)-R^{\dagger4}$, **(o)** $-O-C(O)-OR^{*4}$, **(p)** $-O-C(O)-N(R^{*4})_2$, **(q)** $-N(R^{*4})-C(O)-OR^{*4}$ and **(r)** $-N(R^{*4})-C(O)-N(R^{*4})_2$;

$R^{S9.1}$ is selected from -H, **(a)** halo, **(b1)** C_{1-6} aliphatic, **(b2)** $R^{#6-3}$, **(c)** $-OR^{*6}$, **(d)** $-N(R^{*6})_2$, **(e)** $-SR^{\dagger6}$, **(f)** C_{1-3} haloalkyl, **(g1)** C_{1-3} haloalkoxy, **(g2)** C_{1-3} haloalkylthio, **(h)** $-NO_2$, **(i)** $-CN$, **(j)** $-C(O)-R^{\dagger6}$, **(k)** $-C(O)-OR^{*6}$, **(l)** $-C(O)-N(R^{*6})_2$, **(m)** $-O-C(O)-R^{\dagger6}$, **(n)** $-N(R^{*6})-C(O)-R^{\dagger6}$, **(o)** $-O-C(O)-OR^{*6}$, **(p)** $-O-C(O)-N(R^{*6})_2$, **(q)** $-N(R^{*6})-C(O)-OR^{*6}$, **(r)** $-N(R^{*6})-C(O)-N(R^{*6})_2$, **(s)** $-Si(R^{\dagger2})_3$, **(aa)** C_{3-8} carbocyclyl, **(bb)** $-A-(C_{3-8} \text{ carbocyclyl})$, **(cc)** 5- to 10-membered heterocyclyl, **(dd)** $-A-(5\text{- to }10\text{-membered heterocyclyl})$, **(ee)** C_{6-10} aryl, **(ff)** $-A-(C_{6-10} \text{ aryl})$, **(gg)** 5- to 10-membered heteroaryl and **(hh)** $-A-(5\text{- to }10\text{-membered heteroaryl})$;

wherein **A** is selected from C_{1-3} alkylene,

$C_{0-3,0-3}$ heteroalkylene, $-O-$, $-S-$, $-N(R^{*1})-$ and $-C(O)-$;

and wherein each of **(aa)-(dd)** is optionally substituted with 1-3 groups independently selected from **(a)** halo, **(b1)** C_{1-2} aliphatic, **(b2)** $R^{#2-1}$, **(c)** $-OR^{*2}$, **(d)** $-N(R^{*2})_2$ and **(e)** $-SR^{\dagger2}$;

and wherein each of **(ee)-(hh)** is optionally substituted with 1-3 groups independently selected from **(a)** halo, **(b1)** C_{1-4} aliphatic, **(b2)** $R^{#4-2}$, **(c)** $-OR^{*4}$, **(d)** $-N(R^{*4})_2$ and **(e)** $-SR^{\dagger4}$.

6. The chemical entity of claim 5, wherein at least 2 of $R^{S7.1a}$, $R^{S7.1b}$, $R^{S8.1}$ and $R^{S9.1}$ are -H.

7. The chemical entity of claim 5, wherein:

$R^{S9.1}$ is selected from -H, **(a)** halo, **(b1)** C_{1-6} aliphatic, **(b2)** R^{6-3} , **(c)** $-OR^{*6}$, **(d)** $-N(R^{*6})_2$, **(e)** $-SR^{+6}$, **(f)** C_{1-3} haloalkyl, **(g1)** C_{1-3} haloalkoxy, **(g2)** C_{1-3} haloalkylthio, **(h)** $-NO_2$, **(i)** $-CN$, **(j)** $-C(O)-R^{+6}$, **(k)** $-C(O)-OR^{*6}$, **(l)** $-C(O)-N(R^{*6})_2$, **(m)** $-O-C(O)-R^{+6}$, **(n)** $-N(R^{*6})-C(O)-R^{+6}$, **(o)** $-O-C(O)-OR^{*6}$, **(p)** $-O-C(O)-N(R^{*6})_2$, **(q)** $-N(R^{*6})-C(O)-OR^{*6}$, **(r)** $-N(R^{*6})-C(O)-N(R^{*6})_2$, **(s)** $-Si(R^{+2})_3$, **(aa)** C_{3-6} carbocyclyl, **(bb)** $-A-(C_{3-6} \text{ carbocyclyl})$, **(cc)** 5- to 6-membered heterocyclyl, **(dd)** $-A-(5\text{- to }6\text{-membered heterocyclyl})$, **(ee)** C_{6-10} aryl, **(ff)** $-A-(C_{6-10} \text{ aryl})$, **(gg)** 5- to 10-membered heteroaryl and **(hh)** $-A-(5\text{- to }10\text{-membered heteroaryl})$;

wherein **A** is selected from C_{1-3} alkylene,

$C_{0-2,0-2}$ heteroalkylene, $-O-$, $-S-$, $-N(R^{*1})-$ and $-C(O)-$;

and wherein each of **(aa)-(dd)** is optionally substituted with 1-2 groups independently selected from **(a)** halo, **(b1)** C_{1-2} aliphatic, **(b2)** R^{2-1} , **(c)** $-OR^{*2}$, **(d)** $-N(R^{*2})_2$ and **(e)** $-SR^{+2}$;

and wherein each of **(ee)-(hh)** is optionally substituted with 1-3 groups independently selected from **(a)** halo, **(b1)** C_{1-4} aliphatic, **(b2)** R^{4-2} , **(c)** $-OR^{*4}$, **(d)** $-N(R^{*4})_2$ and **(e)** $-SR^{+4}$.

8. The chemical entity of claim 5, wherein:

each of $R^{S8.1}$ and $R^{S9.1}$ is independently selected from -H, **(a)** -F, -Cl, **(b1)** C_{1-2} alkyl, **(c)** $-OR^{*2}$, **(d)** $-N(R^{*2})_2$, **(e)** $-SR^{+2}$, **(f)** $-CF_3$, **(g1)** $-O-CF_3$ and **(g2)** $-S-CF_3$.

9. The chemical entity of claim 8, wherein:

each of $R^{S8.1}$ and $R^{S9.1}$ is independently selected from -H, **(a)** -F, -Cl, **(b1)** $-CH_3$, **(c)** $-OMe$, **(f)** $-CF_3$, **(g1)** $-O-CF_3$ and **(g2)** $-S-CF_3$.

10. The chemical entity of claim 7, wherein:

each of $R^{S7.1a}$ and $R^{S7.1b}$ is -H.

11. The chemical entity of claim 7, wherein:

$R^{S9.1}$ is selected from -H, **(a)** halo, **(b1)** C_{1-4} aliphatic, **(b2)** R^{6-3} , **(c)** $-OR^{*4}$, **(d)** $-N(R^{*4})_2$, **(e)** $-SR^{+4}$, **(f)** C_{1-3} haloalkyl, **(g1)** C_{1-3} haloalkoxy, **(g2)** C_{1-3} haloalkylthio, **(h)** $-NO_2$, **(i)** $-CN$, **(j)** $-C(O)-R^{+4}$, **(k)** $-C(O)-OR^{*4}$, **(l)** $-C(O)-N(R^{*4})_2$, **(m)** $-O-C(O)-R^{+4}$, **(n)** $-N(R^{*4})-C(O)-R^{+4}$, **(o)** $-O-C(O)-OR^{*4}$, **(p)** $-O-C(O)-N(R^{*4})_2$, **(q)** $-N(R^{*4})-C(O)-OR^{*4}$, **(r)** $-N(R^{*4})-C(O)-N(R^{*4})_2$, **(s)** $-Si(R^{+2})_3$, **(aa)** C_{3-6} carbocyclyl, **(bb)** $-A-(C_{3-6} \text{ carbocyclyl})$,

(**cc**) 5- to 6-membered heterocyclyl, (**dd**) -A-(5- to 6-membered heterocyclyl),
 (**ee**) C₆ aryl, (**ff**) -A-(C₆ aryl), (**gg**) 5- to 6-membered heteroaryl and (**hh**) -A-(5- to 6-membered heteroaryl);

wherein **A** is selected from C₁₋₃ alkylene,

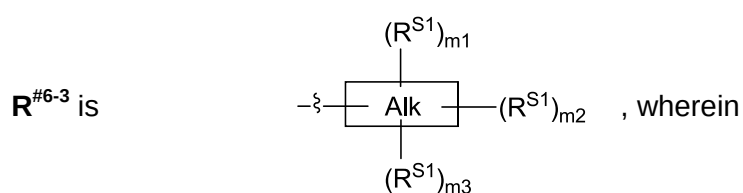
C_{0-2,0-2} heteroalkylene, -O-, -S-, -N(R^{*1})- and -C(O)-;

and wherein each of (**aa**)-(**dd**) is optionally substituted with 1 group selected from

(**a**) halo, (**b1**) C₁₋₂ aliphatic, (**b2**) R^{#2-1}, (**c**) -OR^{*2}, (**d**) -N(R^{*2})₂ and (**e**) -SR^{†2};

and wherein each of (**ee**)-(**hh**) is optionally substituted with 1-2 groups independently

selected from (**a**) halo, (**b1**) C₁₋₄ aliphatic, (**b2**) R^{#4-2}, (**c**) -OR^{*4}, (**d**) -N(R^{*4})₂ and (**e**) -SR^{†4}; and



$-\zeta - \boxed{\text{Alk}}$ represents C₁₋₆ alkyl; and

each of **m1**, **m2** and **m3** is independently 0 or 1.

12. The chemical entity of claim 11, wherein:

R^{S9.1} is selected from -H, (**a**) halo, (**b1**) C₁₋₄ aliphatic, (**b2**) R^{#6-3}, (**c**) -OR^{*4}, (**f**)

C₁₋₃ haloalkyl, (**g1**) C₁₋₃ haloalkoxy, (**g2**) C₁₋₃ haloalkylthio, (**s**) -Si(R^{†2})₃,

(**aa**) C₃₋₆ carbocyclyl, (**bb**) -A-(C₃₋₆ carbocyclyl), (**cc**) 5- to 6-membered heterocyclyl,

(**ee**) C₆ aryl, (**ff**) -A-(C₆ aryl) and (**gg**) 5- to 6-membered heteroaryl;

wherein **A** is selected from -CH₂-, C_{0-1,0-1} heteroalkylene, -O-, -S-, -NH- and -C(O)-;

and wherein each of (**aa**)-(**cc**) is optionally substituted with 1 group selected from

(**a**) halo, (**b1**) C₁₋₂ aliphatic, (**b2**) R^{#2-1}, (**c**) -OR^{*2}, (**d**) -N(R^{*2})₂ and (**e**) -SR^{†2};

and wherein each of (**ee**)-(**gg**) is optionally substituted with 1 group selected from

(**a**) halo, (**b1**) C₁₋₂ aliphatic, (**b2**) R^{#2-1}, (**c**) -OR^{*2}, (**d**) -N(R^{*2})₂ and (**e**) -SR^{†2}.

13. The chemical entity of claim 11, wherein:

R^{S9.1} is selected from -H, (**a**) -Cl, -Br, (**b1**) ^tBu, -C≡C,

(**b2**) -C(CH₃)₂-CF₃, -C(CH₃)₂-O-Me, -C(CH₃)₂-O-Et, -C(CH₃)₂-O-Pr, -C(CH₃)(CH₂-OH)(CH₂-Cl), (**c**) -OMe, (**f**) -CF₃, (**g1**) -O-CHF₂, -O-CF₃, (**g2**) -S-CF₃, (**s**) -Si(CH₃)₃,

(**aa**) cyclopentyl, cyclopenten-1-yl, (**bb**) -S-cyclopropylmethyl, (**cc**) pyrrolidin-1-yl, piperidin-1-yl, pyrrolidin-2-on-1-yl, morpholin-4-yl, (**ee**) phenyl, (**ff**) benzyl, -O-Ph, -C(O)-Ph, (**gg**) pyridin-2-yl and 1-methyl-1*H*-pyrazol-2-yl.

14. The chemical entity of claim 11, wherein:

R^{S8.1} is selected from -H, (**a**) halo, (**b1**) C₁₋₂ aliphatic, (**b2**) R²⁻¹, (**c**) -OR^{*2}, (**d**) -N(R^{*2})₂, (**e**) -SR^{†2}, (**f**) C₁₋₃ haloalkyl, (**g1**) C₁₋₃ haloalkoxy, (**g2**) C₁₋₃ haloalkylthio, (**h**) -NO₂, (**i**) -CN, (**j**) -C(O)-R^{†2}, (**k**) -C(O)-OR^{*2}, (**l**) -C(O)-N(R^{*2})₂, (**m**) -O-C(O)-R^{†2}, (**n**) -N(R^{*2})-C(O)-R^{†2}, (**o**) -O-C(O)-OR^{*2}, (**p**) -O-C(O)-N(R^{*2})₂, (**q**) -N(R^{*2})-C(O)-OR^{*2} and (**r**) -N(R^{*2})-C(O)-N(R^{*2})₂.

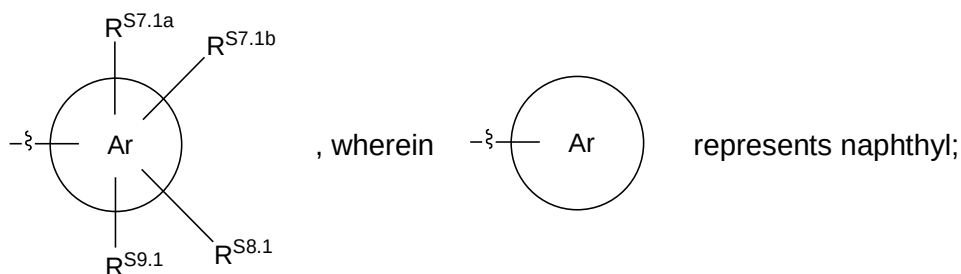
15. The chemical entity of claim 5, wherein the compound is

- I-001 (rac)-((1R,2R,3S,4R)-2,3-dihydroxy-4-(2-phenylpyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl)methyl rel-sulfamate;
- I-003 (rac)-((1R,2R,3S,4R)-4-(2-(biphenyl-3-yl)pyrazolo[1,5-a]pyrimidin-7-ylamino)-2,3-dihydroxycyclopentyl)methyl rel-sulfamate;
- I-004 (rac)-{(1R,2R,3S,4R)-2,3-dihydroxy-4-[(5-methyl-2-phenylpyrazolo[1,5-a]pyrimidin-7-yl)amino]cyclopentyl)methyl rel-sulfamate;
- I-005 (rac)-((1R,2R,3S,4R)-4-((2-(3-Chlorophenyl)pyrazolo[1,5-a]pyrimidin-7-yl)amino)-2,3-dihydroxycyclopentyl)methyl rel-sulfamate;
- I-006 (rac)-{(1R,2R,3S,4R)-4-[(5-chloro-2-phenylpyrazolo[1,5-a]pyrimidin-7-yl)amino]-2,3-dihydroxycyclopentyl)methyl rel-sulfamate;
- I-007 (rac)-((1R,2R,3S,4R)-2,3-Dihydroxy-4-((2-(3-(trifluoromethyl)phenyl)pyrazolo[1,5-a]pyrimidin-7-yl)amino)cyclopentyl)methyl rel-sulfamate;
- I-008 (rac)-((1R,2R,3S,4R)-4-(2-(4-bromophenyl)-5-chloropyrazolo[1,5-a]pyrimidin-7-ylamino)-2,3-dihydroxycyclopentyl)methyl rel-sulfamate;
- I-013 (rac)-[(1R,2R,3S,4R)-4-{[2-(2,4-dichlorophenyl)pyrazolo[1,5-a]pyrimidin-7-yl]amino}-2,3-dihydroxycyclopentyl)methyl rel-sulfamate;
- I-014 (rac)-[(1R,2R,3S,4R)-4-{[5-chloro-2-(4-methoxyphenyl)pyrazolo[1,5-a]pyrimidin-7-yl]amino}-2,3-dihydroxycyclopentyl)methyl rel-sulfamate;
- I-015 (rac)-((1R,2R,3S,4R)-4-((2-(3-(tert-Butyl)phenyl)pyrazolo[1,5-a]pyrimidin-7-yl)amino)-2,3-dihydroxycyclopentyl)methyl rel-sulfamate;
- I-020 (rac)-((1R,2R,3S,4R)-4-(2-(5-chloro-2-methoxyphenyl)pyrazolo[1,5-a]pyrimidin-7-ylamino)-2,3-dihydroxycyclopentyl)methyl rel-sulfamate;
- I-021 (rac)-((1R,2R,3S,4R)-4-(2-(5-chloro-2-methylphenyl)pyrazolo[1,5-a]pyrimidin-7-ylamino)-2,3-dihydroxycyclopentyl)methyl rel-sulfamate;
- I-028 (rac)-((1R,2R,3S,4R)-4-((2-(3-Bromophenyl)pyrazolo[1,5-a]pyrimidin-7-yl)amino)-2,3-dihydroxycyclopentyl)methyl rel-sulfamate;
- I-029 (rac)-((1R,2R,3S,4R)-4-((2-(2-Fluoro-5-(trifluoromethyl)phenyl)pyrazolo[1,5-a]pyrimidin-7-yl)amino)-2,3-dihydroxycyclopentyl)methyl rel-sulfamate;

- I-030 (rac)-((1R,2R,3S,4R)-4-((2-(2-Chloro-5-(trifluoromethyl)phenyl)pyrazolo[1,5-a]pyrimidin-7-yl)amino)-2,3-dihydroxycyclopentyl)methyl rel-sulfamate;
- I-035 (rac)-((1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(3-(trimethylsilyl)phenyl)pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl)methyl rel-sulfamate;
- I-036 (rac)-((1R,2R,3S,4R)-2,3-Dihydroxy-4-((2-(3-(pyridin-2-yl)phenyl)pyrazolo[1,5-a]pyrimidin-7-yl)amino)cyclopentyl)methyl rel-sulfamate;
- I-040 (rac)-((1R,2R,3S,4R)-2,3-Dihydroxy-4-((2-(3-(trifluoromethoxy)phenyl)-pyrazolo[1,5-a]pyrimidin-7-yl)amino)cyclopentyl)methyl rel-sulfamate;
- I-044 (rac)-((1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(3-(trifluoromethylthio)-phenyl)pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl)methyl rel-sulfamate;
- I-046 (rac)-((1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(3-(pyrrolidin-1-yl)phenyl)pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl)methyl rel-sulfamate;
- I-047 (rac)-((1R,2R,3S,4R)-4-(2-(3-cyclopentenylphenyl)pyrazolo[1,5-a]pyrimidin-7-ylamino)-2,3-dihydroxycyclopentyl)methyl rel-sulfamate;
- I-048 (rac)-((1R,2R,3S,4R)-4-([2-(3-cyclopentylphenyl)pyrazolo[1,5-a]pyrimidin-7-yl]amino)-2,3-dihydroxycyclopentyl)methyl rel-sulfamate;
- I-050 (rac)-((1R,2R,3S,4R)-4-((2-(3-(Difluoromethoxy)phenyl)pyrazolo[1,5-a]pyrimidin-7-yl)amino)-2,3-dihydroxycyclopentyl)methyl rel-sulfamate;
- I-051 (rac)-((1R,2R,3S,4R)-2,3-Dihydroxy-4-((2-(3-phenoxyphenyl)pyrazolo[1,5-a]pyrimidin-7-yl)amino)cyclopentyl)methyl rel-sulfamate;
- I-057 (rac)-((1R,2R,3S,4R)-4-(2-(5-chloro-2-(trifluoromethoxy)phenyl)pyrazolo[1,5-a]pyrimidin-7-ylamino)-2,3-dihydroxycyclopentyl)methyl rel-sulfamate;
- I-058 (rac)-((1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(3-(1,1,1-trifluoro-2-methylpropan-2-yl)-phenyl)pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl)methyl rel-sulfamate;
- I-063 (rac)-((1R,2R,3S,4R)-4-([2-(5-tert-butyl-2-methoxyphenyl)pyrazolo[1,5-a]pyrimidin-7-yl]amino)-2,3-dihydroxycyclopentyl)methyl rel-sulfamate;
- I-065 (rac)-((1R,2R,3S,4R)-2,3-Dihydroxy-4-((2-(2-methoxy-5-(trifluoromethyl)phenyl)-pyrazolo[1,5-a]pyrimidin-7-yl)amino)cyclopentyl)methyl rel-sulfamate;
- I-066 (rac)-((1R,2R,3S,4R)-2,3-Dihydroxy-4-((2-(2-methoxy-5-(trifluoromethoxy)-phenyl)pyrazolo[1,5-a]pyrimidin-7-yl)amino)cyclopentyl)methyl rel-sulfamate;
- I-068 (rac)-((1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(2-phenoxyphenyl)pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl)methyl rel-sulfamate;
- I-069 (rac)-((1R,2R,3S,4R)-4-(2-(3-benzylphenyl)pyrazolo[1,5-a]pyrimidin-7-ylamino)-2,3-dihydroxycyclopentyl)methyl rel-sulfamate;
- I-070 (rac)-((1R,2R,3S,4R)-4-(2-(4-fluoro-2-methoxyphenyl)pyrazolo[1,5-a]pyrimidin-7-ylamino)-2,3-dihydroxycyclopentyl)methyl rel-sulfamate;
- I-072 (rac)-((1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(2-methoxyphenyl)pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl)methyl rel-sulfamate;
- I-073 (rac)-((1R,2R,3S,4R)-4-(2-(3-benzoylphenyl)pyrazolo[1,5-a]pyrimidin-7-ylamino)-2,3-dihydroxycyclopentyl)methyl rel-sulfamate;
- I-076 (rac)-((1R,2R,3S,4R)-4-(2-(3-(cyclopropylmethylthio)phenyl)pyrazolo[1,5-a]pyrimidin-7-ylamino)-2,3-dihydroxycyclopentyl)methyl rel-sulfamate;

- I-077 (rac)-((1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(3-(piperidin-1-yl)phenyl)pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl)methyl rel-sulfamate;
- I-078 (rac)-((1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(3-morpholinophenyl)pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl)methyl rel-sulfamate;
- I-079 (rac)-((1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(2-(trifluoromethylthio)phenyl)-pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl)methyl rel-sulfamate;
- I-080 (rac)-((1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(4-(trifluoromethylthio)phenyl)-pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl)methyl rel-sulfamate;
- I-082 (rac)-((1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(3-(2-methoxypropan-2-yl)phenyl)-pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl)methyl rel-sulfamate;
- I-083 (rac)-[(1R,2R,3S,4R)-4-{{2-(3-ethynylphenyl)pyrazolo[1,5-a]pyrimidin-7-yl}amino}-2,3-dihydroxycyclopentyl]methyl rel-sulfamate;
- I-084 (rac)-((1R,2R,3S,4R)-4-(2-(3-(2-ethoxypropan-2-yl)phenyl)pyrazolo[1,5-a]pyrimidin-7-ylamino)-2,3-dihydroxycyclopentyl)methyl rel-sulfamate;
- I-087 (rac)-((1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(3-(2-oxopyrrolidin-1-yl)phenyl)pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl)methyl rel-sulfamate;
- I-089 (rac)-((1R,2R,3S,4R)-2,3-dihydroxy-4-[(6-methyl-2-phenylpyrazolo[1,5-a]pyrimidin-7-yl)amino]cyclopentyl)methyl rel-sulfamate;
- I-090 (rac)-((1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(3-(2-propoxypropan-2-yl)phenyl)pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl)methyl rel-sulfamate;
- I-101 (s.e.)-(1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(3-(trifluoromethylthio)-phenyl)pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl)methyl sulfamate;
- I-102 (s.e.)-(1R,2R,3S,4R)-2,3-dihydroxy-4-({2-[2-methoxy-5-(trifluoromethoxy)-phenyl]pyrazolo[1,5-a]pyrimidin-7-yl}amino)cyclopentyl)methyl sulfamate; or
- I-120 (s.e.)-(1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(2-methoxy-5-(trifluoromethylthio)-phenyl)pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl)methyl sulfamate.

16. The chemical entity of claim 1, wherein **Z** is optionally substituted naphthyl:



each of $R^{S7.1a}$ and $R^{S7.1b}$ is independently selected from **(a)** halo, **(b1)** C_{1-4} aliphatic, **(b2)** $R^{\#4-2}$, **(c)** $-OR^{*4}$, **(d)** $-N(R^{*4})_2$ and **(e)** $-SR^{\dagger4}$;

$R^{S8.1}$ is selected from **(a)** halo, **(b1)** C_{1-4} aliphatic, **(b2)** $R^{\wedge4-2}$, **(c)** $-OR^{*4}$, **(d)** $-N(R^{*4})_2$, **(e)** $-SR^{\dagger4}$, **(f)** C_{1-3} haloalkyl, **(g)** C_{1-3} haloalkoxy, **(h)** $-NO_2$, **(i)** $-CN$, **(j)** $-C(O)-R^{\dagger4}$, **(k)** $-C(O)-OR^{*4}$, **(l)** $-C(O)-N(R^{*4})_2$, **(m)** $-O-C(O)-R^{\dagger4}$, **(n)** $-N(R^{*4})-C(O)-R^{\dagger4}$,

(o) -O-C(O)-OR^{*4}, (p) -O-C(O)-N(R^{*4})₂, (q) -N(R^{*4})-C(O)-OR^{*4} and
(r) -N(R^{*4})-C(O)-N(R^{*4})₂;

R^{S9.1} is selected from (a) halo, (b1) C₁₋₄ aliphatic, (b2) R⁴⁻², (c) -OR^{*4}, (d) -N(R^{*4})₂,
(e) -SR^{†4}, (f) C₁₋₃ haloalkyl, (g) C₁₋₃ haloalkoxy, (h) -NO₂, (i) -CN, (j) -C(O)-R^{†4},
(k) -C(O)-OR^{*4}, (l) -C(O)-N(R^{*4})₂, (m) -O-C(O)-R^{†4}, (n) -N(R^{*4})-C(O)-R^{†4},
(o) -O-C(O)-OR^{*4}, (p) -O-C(O)-N(R^{*4})₂, (q) -N(R^{*4})-C(O)-OR^{*4} and
(r) -N(R^{*4})-C(O)-N(R^{*4})₂, (aa) C₃₋₆ carbocyclyl, (cc) 5- to 6-membered heterocyclyl,
(ee) C₆ aryl and (gg) 5- to 6-membered heteroaryl;

wherein each of (aa) and (cc) is optionally substituted with 1-2 groups independently
selected from (a) halo, (b1) C₁₋₂ aliphatic, (b2) R^{#2-1}, (c) -OR^{*2}, (d) -N(R^{*2})₂ and
(e) -SR^{†2};

and wherein each of (ee) and (gg) is optionally substituted with 1-3 groups
independently selected from (a) halo, (b1) C₁₋₂ aliphatic, (b2) R^{#2-1}, (c) -OR^{*2},
(d) -N(R^{*2})₂ and (e) -SR^{†2};

provided that at least 1 of R^{S7.1a}, R^{S7.1b}, R^{S8.1} and R^{S9.1} is -H.

17. The chemical entity of claim 16, wherein at least 2 of R^{S7.1a}, R^{S7.1b}, R^{S8.1} and R^{S9.1} are -H.

18. The chemical entity of claim 16, wherein:

R^{S9.1} is selected from (a) halo, (b1) C₁₋₄ aliphatic, (b2) R⁴⁻², (c) -OR^{*4}, (d) -N(R^{*4})₂,
(e) -SR^{†4}, (f) C₁₋₃ haloalkyl, (g) C₁₋₃ haloalkoxy, (h) -NO₂, (i) -CN, (j) -C(O)-R^{†4},
(k) -C(O)-OR^{*4}, (l) -C(O)-N(R^{*4})₂, (m) -O-C(O)-R^{†4}, (n) -N(R^{*4})-C(O)-R^{†4},
(o) -O-C(O)-OR^{*4}, (p) -O-C(O)-N(R^{*4})₂, (q) -N(R^{*4})-C(O)-OR^{*4} and
(r) -N(R^{*4})-C(O)-N(R^{*4})₂.

19. The chemical entity of claim 16, wherein:

each of R^{S7.1a} and R^{S7.1b} is -H;

R^{S8.1} is selected from -H, (a) halo and (b1) C₁₋₂ aliphatic; and

R^{S9.1} is selected from (a) halo, (b1) C₁₋₄ aliphatic, (b2) R⁴⁻², (c) -OR^{*4}, (d) -N(R^{*4})₂,
(e) -SR^{†4}, (f) C₁₋₃ haloalkyl, (g) C₁₋₃ haloalkoxy, (h) -NO₂, (i) -CN, (j) -C(O)-R^{†4},
(k) -C(O)-OR^{*4}, (l) -C(O)-N(R^{*4})₂, (m) -O-C(O)-R^{†4}, (n) -N(R^{*4})-C(O)-R^{†4},
(o) -O-C(O)-OR^{*4}, (p) -O-C(O)-N(R^{*4})₂, (q) -N(R^{*4})-C(O)-OR^{*4} and
(r) -N(R^{*4})-C(O)-N(R^{*4})₂.

20. The chemical entity of claim 19, wherein:

each of $R^{S7.1a}$ and $R^{S7.1b}$ is -H;

$R^{S8.1}$ is -H; and

$R^{S9.1}$ is selected from (a) -F, -Cl, (b1) C_{1-2} alkyl, (c) $-OR^{*4}$, (d) $-N(R^{*2})_2$, (f) C_{1-2} haloalkyl, (g) C_{1-2} haloalkoxy and (k) $-C(O)-OR^{*2}$;

21. The chemical entity of claim 19, wherein:

each of $R^{S7.1a}$ and $R^{S7.1b}$ is -H; and

each of $R^{S8.1}$ and $R^{S9.1}$ is independently selected from -H, (a) halo and (b1) C_{1-2} aliphatic.

22. The chemical entity of claim 16, wherein the compound is

I-002 (rac)-((1R,2R,3S,4R)-2,3-dihydroxy-4-{{2-(1-naphthyl)pyrazolo[1,5-a]pyrimidin-7-yl}amino}cyclopentyl)methyl rel-sulfamate;

I-009 (rac)-((1R,2R,3S,4R)-4-{{5-chloro-2-(1-naphthyl)pyrazolo[1,5-a]pyrimidin-7-yl}amino}-2,3-dihydroxycyclopentyl)methyl rel-sulfamate;

I-016 (rac)-((1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(naphthalen-2-yl)pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl)methyl rel-sulfamate;

I-096 (rac)-methyl rel-5-[7-{{(1R,2S,3R,4R)-2,3-dihydroxy-4-[(sulfamoyloxy)methyl]cyclopentyl}amino}pyrazolo[1,5-a]pyrimidin-2-yl]-2-naphthoate;

I-097 (rac)-((1R,2R,3S,4R)-4-(2-(5-fluoronaphthalen-1-yl)pyrazolo[1,5-a]pyrimidin-7-ylamino)-2,3-dihydroxycyclopentyl)methyl rel-sulfamate;

I-098 (s.e.)-(1R,2R,3S,4R)-2,3-dihydroxy-4-{{2-(1-naphthyl)pyrazolo[1,5-a]pyrimidin-7-yl}amino}cyclopentyl)methyl sulfamate;

I-099 (rac)-rel-5-[7-{{(1R,2S,3R,4R)-2,3-dihydroxy-4-[(sulfamoyloxy)methyl]cyclopentyl}amino}pyrazolo[1,5-a]pyrimidin-2-yl]-2-naphthoic acid

I-100 (s.e.)-(1R,2R,3S,4R)-4-(2-(4-fluoronaphthalen-1-yl)pyrazolo[1,5-a]pyrimidin-7-ylamino)-2,3-dihydroxycyclopentyl)methyl sulfamate;

I-104 (s.e.)-(1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(2-methoxynaphthalen-1-yl)pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl)methyl sulfamate;

I-105 (s.e.)-(1R,2R,3S,4R)-4-(2-(5-fluoronaphthalen-1-yl)pyrazolo[1,5-a]pyrimidin-7-ylamino)-2,3-dihydroxycyclopentyl)methyl sulfamate;

I-106 (s.e.)-(1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(4-methoxynaphthalen-1-yl)pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl)methyl sulfamate;

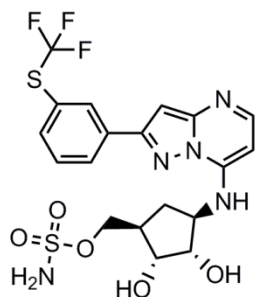
I-107 (s.e.)-(1R,2R,3S,4R)-4-(2-(4-(dimethylamino)naphthalen-1-yl)pyrazolo[1,5-a]pyrimidin-7-ylamino)-2,3-dihydroxycyclopentyl)methyl sulfamate;

I-108 (s.e.)-(1R,2R,3S,4R)-4-{{2-(4-chloro-1-naphthyl)pyrazolo[1,5-a]pyrimidin-7-yl}amino}-2,3-dihydroxycyclopentyl)methyl sulfamate;

- I-109 (s.e.)-((1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(2-isopropoxynaphthalen-1-yl)pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl)methyl sulfamate;
- I-110 (s.e.)-((1R,2R,3S,4R)-4-(2-(2-(difluoromethoxy)naphthalen-1-yl)pyrazolo[1,5-a]pyrimidin-7-ylamino)-2,3-dihydroxycyclopentyl)methyl sulfamate;
- I-111 (s.e.)-((1R,2R,3S,4R)-4-(2-(6-(difluoromethyl)naphthalen-1-yl)pyrazolo[1,5-a]pyrimidin-7-ylamino)-2,3-dihydroxycyclopentyl)methyl sulfamate;
- I-112 (s.e.)-((1R,2R,3S,4R)-4-(2-(4-(difluoromethoxy)naphthalen-1-yl)pyrazolo[1,5-a]pyrimidin-7-ylamino)-2,3-dihydroxycyclopentyl)methyl sulfamate;
- I-113 (s.e.)-((1R,2R,3S,4R)-4-(2-(6-fluoronaphthalen-2-yl)pyrazolo[1,5-a]pyrimidin-7-ylamino)-2,3-dihydroxycyclopentyl)methyl sulfamate;
- I-114 (s.e.)-((1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(2-methylnaphthalen-1-yl)pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl)methyl sulfamate;
- I-115 (s.e.)-((1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(4-methylnaphthalen-1-yl)pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl)methyl sulfamate;
- I-116 (s.e.)-((1R,2R,3S,4R)-4-(2-(3-fluoronaphthalen-2-yl)pyrazolo[1,5-a]pyrimidin-7-ylamino)-2,3-dihydroxycyclopentyl)methyl sulfamate;
- I-117 (s.e.)-((1R,2R,3S,4R)-4-(2-(2,4-dichloronaphthalen-1-yl)pyrazolo[1,5-a]pyrimidin-7-ylamino)-2,3-dihydroxycyclopentyl)methyl sulfamate;
- I-118 (s.e.)-((1R,2R,3S,4R)-4-(2-(4-fluoronaphthalen-2-yl)pyrazolo[1,5-a]pyrimidin-7-ylamino)-2,3-dihydroxycyclopentyl)methyl sulfamate; or
- I-119 (s.e.)-((1R,2R,3S,4R)-4-(2-(1-fluoronaphthalen-2-yl)pyrazolo[1,5-a]pyrimidin-7-ylamino)-2,3-dihydroxycyclopentyl)methyl sulfamate.

- 23.** Crystalline Form 1 anhydrous (s.e.)-((1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(3-(trifluoromethylthio)phenyl)pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl)methyl sulfamate.
- 24.** Substantially crystalline Form 1 anhydrous (s.e.)-((1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(3-(trifluoromethylthio)phenyl)pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl)methyl sulfamate.
- 25.** At least 90% by weight crystalline Form 1 anhydrous (s.e.)-((1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(3-(trifluoromethylthio)phenyl)pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl)methyl sulfamate.
- 26.** At least 95% by weight crystalline Form 1 anhydrous (s.e.)-((1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(3-(trifluoromethylthio)phenyl)pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl)methyl sulfamate.

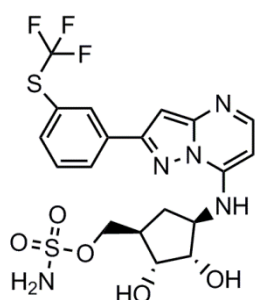
27. Crystalline Form 2 monohydrated (s.e.)-((1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(3-(trifluoromethylthio)phenyl)pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl)methyl sulfamate.
28. Substantially crystalline Form 2 monohydrated (s.e.)-((1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(3-(trifluoromethylthio)phenyl)pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl)methyl sulfamate.
29. At least 90% by weight crystalline Form 2 monohydrated (s.e.)-((1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(3-(trifluoromethylthio)phenyl)pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl)methyl sulfamate.
30. At least 95% by weight crystalline Form 2 monohydrated (s.e.)-((1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(3-(trifluoromethylthio)phenyl)pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl)methyl sulfamate.
31. A pharmaceutical composition comprising, the chemical entity of claim 1, and a pharmaceutically acceptable carrier.
32. A pharmaceutical composition comprising, crystalline Form 1 anhydrous (s.e.)-((1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(3-(trifluoromethylthio)phenyl)pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl)methyl sulfamate, and a pharmaceutically acceptable carrier.
33. A pharmaceutical composition comprising, crystalline Form 2 monohydrated (s.e.)-((1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(3-(trifluoromethylthio)phenyl)pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl)methyl sulfamate, and a pharmaceutically acceptable carrier.
34. A chemical entity comprising (rac)-((1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(3-(trifluoromethylthio)phenyl)pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl)methyl rel-sulfamate of Formula **I-044**:



I-044,

or a pharmaceutically acceptable salt thereof.

35. A pharmaceutical composition comprising the chemical entity of claim 34 and a pharmaceutically acceptable carrier.
36. The chemical entity of claim 34, which is a compound of Formula ***I-044***.
37. A pharmaceutical composition comprising the chemical entity of claim 36 and a pharmaceutically acceptable carrier.
38. A chemical entity comprising (s.e.)-((1R,2R,3S,4R)-2,3-dihydroxy-4-(2-(3-(trifluoromethylthio)phenyl)pyrazolo[1,5-a]pyrimidin-7-ylamino)cyclopentyl)methyl sulfamate of Formula ***I-101***:



I-101,

or a pharmaceutically acceptable salt thereof.

39. A pharmaceutical composition comprising the chemical entity of claim 38 and a pharmaceutically acceptable carrier.
40. The chemical entity of claim 38, which is a compound of Formula ***I-101***.

- 41.** A pharmaceutical composition comprising the chemical entity of claim 40 and a pharmaceutically acceptable carrier.