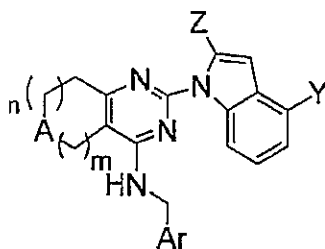


CLAIMS

1. A fused pyrimidine compound of Formula I



Formula I

Wherein:

A is CH_2 , NR^1 , O or S;

m is an integer of 1-3;

n is 0 or an integer of 1-2;

the ring containing A is a five or six member ring such that the sum of $m+n$ is 1 or 2;

Y is selected from the group consisting of hydrogen, halogen, R^c , OR^c , CN, CO_2H , $\text{CON}(\text{R}^c)_2$, $\text{C}(\text{NR}^c)\text{N}(\text{R}^c)_2$, $\text{CH}_2\text{N}(\text{R}^c)_2$, $\text{SO}_2\text{N}(\text{R}^c)_2$ and SO_2R^c wherein each R^c is independently selected from the group consisting of hydrogen, alkyl, fluoroalkyl, aryl, aralkyl, heterocyclylalkyl, heteroaryl and any combination thereof;

Z is selected from the group consisting of halogen, unsubstituted alkyl of 1 to 6 carbons, substituted alkyl or alkenyl of 1 to 4 carbons, and substituted alkoxy of 1 to 4 carbons; wherein

the substituted alkyl or alkenyl group is substituted with OR^a , SR^a , $\text{OC}(\text{O})\text{R}^a$, $\text{C}(\text{O})\text{R}^a$, $\text{C}(\text{O})\text{OR}^a$, $\text{OC}(\text{O})\text{N}(\text{R}^a)_2$, $\text{C}(\text{O})\text{N}(\text{R}^a)_2$, $\text{N}(\text{R}^a)\text{C}(\text{O})\text{OR}^a$, $\text{N}(\text{R}^a)\text{C}(\text{O})\text{R}^a$, $\text{N}(\text{R}^a)\text{C}(\text{O})\text{N}(\text{R}^a)_2$, $\text{N}(\text{R}^a)\text{C}(\text{NR}^a)\text{N}(\text{R}^a)_2$, $\text{N}(\text{R}^a)\text{S}(\text{O})_t\text{Ra}$, $\text{S}(\text{O})_t\text{OR}^a$, $\text{S}(\text{O})_t\text{N}(\text{R}^a)_2$, $\text{N}(\text{R}^a)_2$ or $\text{PO}_3(\text{R}^a)_2$ wherein each R^a is independently hydrogen, alkyl, fluoroalkyl, aryl, aralkyl, heterocyclylalkyl, heteroaryl or any combination thereof; and,

the substituted alkoxy group is substituted with OR^b , R^b , $\text{OC}(\text{O})\text{R}^b$, $\text{N}(\text{R}^b)_2$, $\text{C}(\text{O})\text{R}^b$, $\text{C}(\text{O})\text{OR}^b$, $\text{OC}(\text{O})\text{N}(\text{R}^b)_2$, $\text{C}(\text{O})\text{N}(\text{R}^b)_2$, $\text{N}(\text{R}^b)\text{C}(\text{O})\text{OR}^b$, $\text{N}(\text{R}^b)\text{C}(\text{O})\text{R}^b$, $\text{N}(\text{R}^b)\text{C}(\text{O})\text{N}(\text{R}^b)_2$, $\text{N}(\text{R}^b)\text{C}(\text{NR}^b)\text{N}(\text{R}^b)_2$, $\text{N}(\text{R}^b)\text{S}(\text{O})_t\text{R}^b$, $\text{S}(\text{O})_t\text{OR}^b$, $\text{S}(\text{O})_t\text{N}(\text{R}^b)_2$, $\text{N}(\text{R}^b)_2$ or $\text{PO}_3(\text{R}^b)_2$ wherein each R^b is independently

hydrogen, alkyl, fluoroalkyl, aryl, aralkyl, heterocyclalkyl, heteroaryl or any combination thereof;

R^1 is selected from a group consisting of hydrogen, unsubstituted alkyl of 1 to 6 carbons, substituted alkyl of 1 to 4 carbons and $-C(O)R^d$; wherein,

the substituted alkyl is substituted with OR^d , SR^d , $OC(O)R^d$, $C(O)R^d$, $C(O)OR^d$, $-OC(O)N(R^d)_2$, $C(O)N(R^d)_2$, $N(R^d)C(O)OR^d$, $N(R^d)C(O)R^d$, $N(R^d)C(O)N(R^d)_2$, $N(R^d)C(NR^d)N(R^d)_2$, $N(R^d)S(O)_tR$, $S(O)_tOR^d$, $S(O)_tN(R^d)_2$, $N(R^d)_2$ or $PO_3(R^d)_2$; and wherein each R^d is independently selected from the group consisting of hydrogen, alkyl, fluoroalkyl, aryl, aralkyl, heterocyclalkyl, heteroaryl, alkenyl, alkynyl or any combination thereof;

each t is independently selected from an integer of 1 or 2; and,

Ar is a phenyl, thiophenyl, pyridinyl, pyrrolyl, furanyl, or a substituted version thereof wherein the substituent is optional, independent and optionally multiple and is an aliphatic, functional or aromatic component, wherein the aliphatic component is selected from the group consisting of alkyl, alkenyl and alkynyl, wherein the aromatic component is selected from the group consisting of aryl, aralkyl and heteroaryl, wherein the functional component is selected from the group consisting of hydroxy, halogen, cyano, trifluoromethyl, trifluoromethoxy, nitro, trimethylsilyl, OR^a , SR^a , $OC(O)R^a$, $N(R^a)_2$, $C(O)R^a$, $C(O)OR^a$, $C(O)N(R^a)_2$, $N(R^a)C(O)OR^a$, $N(R^a)C(O)R^a$, $N(R^a)C(O)N(R^a)_2$, $N(R^a)C(NR^a)N(R^a)_2$, $N(R^a)S(O)_tR^a$, $S(O)_tOR^a$, $S(O)_tN(R^a)_2$, $R^a-N(R^a)_2$ and $PO_3(R^a)_2$, wherein t is 1 or 2, wherein each R^a is independently hydrogen, alkyl, fluoroalkyl, aryl, aralkyl, heterocyclalkyl or heteroaryl,

wherein "aryl" is selected from the group consisting of phenyl, fluorenyl and naphthyl, wherein "aryl" is optionally substituted with one or more substituents selected from the group consisting of alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclalkyl, aryl, aralkyl, heteroaryl, hydroxy, halogen, cyano, trifluoromethyl, trifluoromethoxy, nitro, trimethylsilyl, OR^a , SR^a , $OC(O)R^a$, $N(R^a)_2$, $C(O)R^a$, $C(O)OR^a$, $OC(O)N(R^a)_2$, $C(O)N(R^a)_2$, $N(R^a)C(O)OR^a$, $N(R^a)C(O)R^a$, $N(R^a)C(O)N(R^a)_2$, $N(R^a)C(NR^a)N(R^a)_2$, $N(R^a)S(O)_tR^a$, $S(O)_tOR^a$, $S(O)_tN(R^a)_2$, $N(R^a)_2$ and $PO_3(R^a)_2$, wherein t is 1 or 2, wherein each R^a is independently hydrogen, alkyl, fluoroalkyl, aryl, aralkyl, heterocyclalkyl or heteroaryl,

wherein "heteroaryl" refers to a 5-, 6- or 10-membered aromatic radical that includes one or more ring heteroatoms selected from nitrogen, oxygen and sulfur, which is optionally substituted with one or more substituents selected from the group consisting of alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclylalkyl, aryl, aralkyl, heteroaryl, hydroxy, halogen, cyano, nitro, oxo, thioxo, trimethylsilyl, OR^a , SR^a , $OC(O)R^a$, $N(R^a)_2$, $C(O)R^a$, $C(O)OR^a$, $C(O)N(R^a)_2$, $N(R^a)C(O)OR^a$, $N(R^a)C(O)R^a$, $N(R^a)S(O)_tR^a$, $S(O)_tOR^a$, $S(O)_tN(R^a)_2$, and $PO_3(R^a)_2$, wherein t is 1 or 2, wherein each R^a is independently hydrogen, alkyl, fluoroalkyl, aryl, aralkyl, heterocyclylalkyl or heteroaryl,

wherein "heterocyclylalkyl" refers to a 5-, 6- or 10-membered non-aromatic ring radical having from one to six heteroatoms selected from nitrogen, oxygen and sulfur, which is optionally substituted with one or more substituents selected from the group consisting of alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclylalkyl, aryl, aralkyl, heteroaryl, hydroxy, halogen, cyano, nitro, oxo, thioxo, trimethylsilyl, OR^a , SR^a , $OC(O)R^a$, $N(R^a)_2$, $C(O)R^a$, $C(O)OR^a$, $C(O)N(R^a)_2$, $N(R^a)C(O)OR^a$, $N(R^a)C(O)R^a$, $N(R^a)S(O)_tR^a$, $S(O)_tOR^a$, $S(O)_tN(R^a)_2$, and $PO_3(R^a)_2$, wherein t is 1 or 2, wherein each R^a is independently hydrogen, alkyl, fluoroalkyl, aryl, aralkyl, heterocyclylalkyl or heteroaryl,

or a pharmaceutically acceptable salt thereof.

2. A fused pyrimidine compound according to claim 1 wherein Z is selected from the group consisting of methyl, ethyl, propyl, methoxy, ethoxy, propoxy, methoxymethyl, methoxyethyl, methoxymethoxy, methoxyethoxy, N -alkylenylacetamide, N -alkylenylurea, N -alkylenylcarbamate, methyl N -alkylenylcarbamate, N -alkylenylsulfonamide, N -alkylenylpropynamide, N -alkylenylacrylamide, morpholinyl, piperidinyl, piperazinyl, pyrrolidinyl, pyrrolidinyl, N -alkylenylmorpholine, trifluoromethyl, pentafluoroethyl, wherein the alkylenyl group is $-(CH_2)_n-$ of one to six carbons.

3. A fused pyrimidine compound according to claim 1, wherein Y is selected from the group consisting of halogen, alkyl, fluoroalkyl, aryl, aralkyl, heterocyclylalkyl, heteroaryl, OR^c , CN , CO_2H , $CON(R^c)_2$, $C(NR^c)N(R^c)_2$, $CH_2N(R^c)_2$, $SO_2N(R^c)_2$ and SO_2R^c wherein each R^c is independently selected

from the group consisting of hydrogen, alkyl, fluoroalkyl, aryl, aralkyl, heterocyclalkyl, heteroaryl and any combination thereof.

4. A fused pyrimidine compound according to claim 1 or 2, wherein Y is selected from the group consisting of cyano, methyl, ethyl, propyl, butyl, amino, methylamino, dimethylamino, aminoalkylenyl, methylaminoalkylenyl, dimethylaminoalkylenyl, hydroxyalkylenyl, methoxy, ethoxy, propoxy, methoxymethyl, methoxyethyl, methoxyethoxy, N-alkylenylacetamide, N-alkylenylurea, N-alkylenylcarbamate, methyl N-alkylenylcarbamate, N-alkylenylsulfonamide, N-alkylenylpropynamide, N-alkylenylacrylamide, morpholinyl, piperidinyl, piperazinyl, pyrrolidonyl, pyrrolidinyl, N-alkylenylmorpholine, trifluoromethyl, pentafluoroethyl, cyanoalkylenyl, fluoro, chloro, bromo, carboxylic acid, sulfonic acid, carboxamide, sulfonamide, N-alkyl carboxamide, N,N-dialkylcarboxamide, N-alkylsulfonamide, N,N-dialkylsulfonamide, wherein the alkylenyl group is $-(CH_2)_n-$ of one to six carbons and the alkyl group is 1 to 4 carbons.

5. The fused pyrimidine compound according to claim 1 wherein Ar is an unsubstituted phenyl.

6. The fused pyrimidine compound of claim 1 wherein the indole group at the 2 position of the fused pyrimidine is a 2-alkylindolyl, a 2-cyanoindolyl, a 2-haloindolyl, a 2-(hydroxyalkyl)indolyl, a 2-(alkoxy)indolyl, a 2-(aminoalkyl)indolyl, a 2-(alkylaminoalkyl)indolyl, a 2-(dialkylaminoalkyl)indolyl, a 2-(acylamidoalkyl)indolyl, a 2-(alkoxycarbonylaminoalkyl)indolyl, a 2-(sulfonamidoalkyl)indolyl, a 2-(β -cyanoalkenyl)indolyl, a 2-(β -cyano- β -carboxyamidoalkenyl)indolyl, a 2-(β -alkylsulfonylalkenyl)indolyl, a 2-(heterocyclalkyl)indolyl, a 2-(aminocarbonylaminoalkyl)indolyl, a 2-(alkynylcarboxamidoalkyl)indolyl, or a 2-(heterocycl)indolyl.

7. A fused pyrimidine compound according to claim 1 having the IUPAC name or a salt or hydrate thereof:

N-benzyl-2-(2-methyl-1H-indol-1-yl)-5,6,7,8-tetrahydroquinazolin-4-amine;
 N-benzyl-2-(2-ethyl-1H-indol-1-yl)-5,6,7,8-tetrahydroquinazolin-4-amine;
 2-[2-(aminomethyl)-1H-indol-1-yl]-N-benzyl-5,6,7,8-tetrahydroquinazolin-4-amine;
 2-[2-(1-aminoethyl)-1H-indol-1-yl]-N-benzyl-5,6,7,8-tetrahydroquinazolin-4-amine;
 N-benzyl-2-(2-methoxy-1H-indol-1-yl)-5,6,7,8-tetrahydroquinazolin-4-amine;
 {1-[4-(benzylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]-1H-indol-2-yl}methanol
 N-benzyl-2-[2-(methoxymethyl)-1H-indol-1-yl]-5,6,7,8-tetrahydroquinazolin-4-amine;
 N-benzyl-2-{2-[(methylamino)methyl]-1H-indol-1-yl}-5,6,7,8-tetrahydroquinazolin-4-amine;
 N-benzyl-2-{2-[(dimethylamino)methyl]-1H-indol-1-yl}-5,6,7,8-tetrahydroquinazolin-4-amine;
 N-({1-[4-(benzylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]-1H-indol-2-yl}methyl)acetamide;
 ({1-[4-(benzylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]-1H-indol-2-yl}methyl)urea;
 methyl N-({1-[4-(benzylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]-1H-indol-2-yl}methyl)carbamate;
 N-({1-[4-(benzylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]-1H-indol-2-yl}methyl)methanesulfonamide;
 4-N-benzyl-2-N-[1-(1H-indol-2-yl)ethyl]-5,6,7,8-tetrahydroquinazoline-2,4-diamine;
 N-benzyl-2-[2-(morpholin-4-ylmethyl)-1H-indol-1-yl]-5,6,7,8-tetrahydroquinazolin-4-amine;
 N-benzyl-2-(2-methyl-1H-indol-3-yl)-5,6,7,8-tetrahydroquinazolin-4-amine

1-[4-(benzylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]-2-methyl-1H-indole-4-carbonitrile;

1-[4-(benzylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]-2-methoxy-1H-indole-4-carbonitrile;

N-benzyl-2-(2-ethoxy-1H-indol-1-yl)-5,6,7,8-tetrahydroquinazolin-4-amine

N-benzyl-2-[2-(trifluoromethyl)-1H-indol-1-yl]-5,6,7,8-tetrahydroquinazolin-4-amine;

N-benzyl-2-(2-chloro-1H-indol-1-yl)-5,6,7,8-tetrahydroquinazolin-4-amine

N-({1-[4-(benzylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]-1H-indol-2-yl}methyl)prop-2-ynamide;

N-({1-[4-(benzylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]-1H-indol-2-yl}methyl)prop-2-enamide;

1-[4-(benzylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]-2-methyl-1H-indole-4-carboxamide;

1-[4-(benzylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]-2-methoxy-1H-indole-4-carboxamide;

2-(aminomethyl)-1-[4-(benzylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]-1H-indole-4-carboxamide;

1-[4-(benzylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]-2-methyl-1H-indole-4-carboxylic acid;

1-[4-(benzylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]-2-methyl-1H-indole-4-sulfonamide;

N-benzyl-2-(4-methanesulfonyl-2-methyl-1H-indol-1-yl)-5,6,7,8-tetrahydroquinazolin-4-amine;

1-[4-(benzylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]-2-ethyl-1H-indole-4-carboxamide;

N-benzyl-2-[2-methyl-4-(1H-1,2,3,4-tetrazol-5-yl)-1H-indol-1-yl]-5,6,7,8-tetrahydroquinazolin-4-amine;

1-[4-(benzylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]-2-(2-methoxyethoxy)-1H-indole-4-carboxamide;

2-[4-(aminomethyl)-2-methyl-1H-indol-1-yl]-N-benzyl-5,6,7,8-tetrahydroquinazolin-4-amine;

1-[4-(benzylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]-2-(propan-2-yl)-1H-indole-4-carboxamide;

1-[4-(benzylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]-2-cyclopropyl-1H-indole-4-carboxamide;

1-[4-(benzylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]-N,2-dimethyl-1H-indole-4-carboxamide;

1-[4-(benzylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]-N,N,2-trimethyl-1H-indole-4-carboxamide;

1-[4-(benzylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]-N-ethyl-2-methyl-1H-indole-4-carboxamide;

1-[4-(benzylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]-N-(2-methoxyethyl)-2-methyl-1H-indole-4-carboxamide;

N-(2-aminoethyl)-1-[4-(benzylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]-2-methyl-1H-indole-4-carboxamide;

1-[4-(benzylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]-2-ethoxy-1H-indole-4-carboxamide;

1-[4-(benzylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]-2-(2-methoxyethoxy)-1H-indole-4-carbonitrile;

2-[2-(1-aminoethyl)-1H-indol-1-yl]-N-benzyl-5H,7H,8H-pyrano[4,3-d]pyrimidin-4-amine;

N-benzyl-2-(2-methoxy-1H-indol-1-yl)-5H,7H,8H-pyrano[4,3-d]pyrimidin-4-amine;

N-benzyl-2-(2-methyl-1H-indol-1-yl)-5H,7H,8H-pyrano[4,3-d]pyrimidin-4-amine;

2-[2-(aminomethyl)-1H-indol-1-yl]-N-benzyl-5H,7H,8H-pyrano[4,3-d]pyrimidin-4-amine;

1-[4-(benzylamino)-5H,7H,8H-pyrano[4,3-d]pyrimidin-2-yl]-2-methoxy-1H-indole-4-carbonitrile;

1-[4-(benzylamino)-5H,7H,8H-pyrano[4,3-d]pyrimidin-2-yl]-2-methyl-1H-indole-4-carbonitrile;

1-[4-(benzylamino)-5H,7H,8H-pyrano[4,3-d]pyrimidin-2-yl]-2-methoxy-1H-indole-4-carboxamide;

1-[4-(benzylamino)-5H,7H,8H-pyrano[4,3-d]pyrimidin-2-yl]-2-methyl-1H-indole-4-carboxamide;

2-(aminomethyl)-1-[4-(benzylamino)-5H,7H,8H-pyrano[4,3-d]pyrimidin-2-yl]-1H-indole-4-carboxamide;

1-[4-(benzylamino)-5H,7H,8H-pyrano[4,3-d]pyrimidin-2-yl]-2-[(dimethylamino)methyl]-1H-indole-4-carboxamide;

1-[4-(benzylamino)-5H,7H,8H-pyrano[4,3-d]pyrimidin-2-yl]-2-(hydroxymethyl)-1H-indole-4-carboxamide;

1-[4-(benzylamino)-5H,7H,8H-pyrano[4,3-d]pyrimidin-2-yl]-N,2-dimethyl-1H-indole-4-carboxamide;

1-[4-(benzylamino)-5H,7H,8H-pyrano[4,3-d]pyrimidin-2-yl]-N,N,2-trimethyl-1H-indole-4-carboxamide;

1-[4-(benzylamino)-5H,7H,8H-pyrano[4,3-d]pyrimidin-2-yl]-2-methyl-N-(propan-2-yl)-1H-indole-4-carboxamide;

1-[4-(benzylamino)-5H,7H,8H-pyrano[4,3-d]pyrimidin-2-yl]-N-(butan-2-yl)-2-methyl-1H-indole-4-carboxamide;

1-[4-(benzylamino)-5H,7H,8H-pyrano[4,3-d]pyrimidin-2-yl]-N-[2-(dimethylamino)ethyl]-2-methyl-1H-indole-4-carboxamide;

N-benzyl-2-{2-methyl-4-[(morpholin-4-yl)carbonyl]-1H-indol-1-yl}-5H,7H,8H-pyrano[4,3-d]pyrimidin-4-amine;

N-benzyl-2-{2-methyl-4-[(piperazin-1-yl)carbonyl]-1H-indol-1-yl}-5H,7H,8H-pyrano[4,3-d]pyrimidin-4-amine;

N-(2-aminoethyl)-1-[4-(benzylamino)-5H,7H,8H-pyrano[4,3-d]pyrimidin-2-yl]-2-methyl-1H-indole-4-carboxamide;

1-[4-(benzylamino)-5H,7H,8H-pyrano[4,3-d]pyrimidin-2-yl]-2-methyl-1H-indole-4-carboxylic acid;

1-[4-(benzylamino)-5H,7H,8H-pyrano[4,3-d]pyrimidin-2-yl]-2-methyl-1H-indole-4-sulfonamide;

1-[4-(benzylamino)-5H,7H,8H-pyrano[4,3-d]pyrimidin-2-yl]-2-ethyl-1H-indole-4-carboxamide;

N-benzyl-2-(4-methanesulfonyl-2-methyl-1H-indol-1-yl)-5H,7H,8H-pyrano[4,3-d]pyrimidin-4-amine;
 1-[4-(benzylamino)-5H,7H,8H-pyrano[4,3-d]pyrimidin-2-yl]-2-methyl-1H-indole-4-carboximidamide;
 N-benzyl-2-[2-methyl-4-(1H-1,2,3,4-tetrazol-5-yl)-1H-indol-1-yl]-5H,7H,8H-pyrano[4,3-d]pyrimidin-4-amine;
 1-(4-{[(4-fluorophenyl)methyl]amino}-5H,7H,8H-pyrano[4,3-d]pyrimidin-2-yl)-2-methyl-1H-indole-4-carboxamide;
 1-(4-{[(2-fluorophenyl)methyl]amino}-5H,7H,8H-pyrano[4,3-d]pyrimidin-2-yl)-2-methyl-1H-indole-4-carboxamide;
 2-[4-(aminomethyl)-2-methyl-1H-indol-1-yl]-N-benzyl-5H,7H,8H-pyrano[4,3-d]pyrimidin-4-amine;
 1-[4-(benzylamino)-5H,7H,8H-pyrano[4,3-d]pyrimidin-2-yl]-2-[(carbamoylamino)methyl]-1H-indole-4-carboxamide;
 1-[4-(benzylamino)-5H,7H,8H-pyrano[4,3-d]pyrimidin-2-yl]-2-(propan-2-yl)-1H-indole-4-carboxamide;
 1-[4-(benzylamino)-5H,7H,8H-pyrano[4,3-d]pyrimidin-2-yl]-2-cyclopropyl-1H-indole-4-carboxamide;
 1-(4-{[(3-fluorophenyl)methyl]amino}-5H,7H,8H-pyrano[4,3-d]pyrimidin-2-yl)-2-methyl-1H-indole-4-carboxamide;
 2-[2-(1-aminoethyl)-1H-indol-1-yl]-N-benzyl-5H,6H,8H-pyrano[3,4-d]pyrimidin-4-amine;
 N-benzyl-2-(2-methyl-1H-indol-1-yl)-5H,7H-furo[3,4-d]pyrimidin-4-amine;
 N-benzyl-2-(2-methyl-1H-indol-1-yl)-5H,6H,7H,8H-pyrido[4,3-d]pyrimidin-4-amine;
 1-[4-(benzylamino)-2-(2-methyl-1H-indol-1-yl)-5H,6H,7H,8H-pyrido[4,3-d]pyrimidin-6-yl]ethan-1-one;
 2-[2-(1-aminoethyl)-1H-indol-1-yl]-N-benzyl-5H,6H,7H,8H-pyrido[4,3-d]pyrimidin-4-amine;
 N-benzyl-2-(2-methoxy-1H-indol-1-yl)-5H,6H,7H,8H-pyrido[4,3-d]pyrimidin-4-amine;

2-[2-(aminomethyl)-1H-indol-1-yl]-N-benzyl-5H,6H,7H,8H-pyrido[4,3-d]pyrimidin-4-amine;

2-[2-(aminomethyl)-1H-indol-1-yl]-N-[(4-fluorophenyl)methyl]-5H,6H,7H,8H-pyrido[4,3-d]pyrimidin-4-amine;

N-benzyl-2-(2-ethoxy-1H-indol-1-yl)-5H,6H,7H,8H-pyrido[4,3-d]pyrimidin-4-amine;

N-benzyl-2-[2-(morpholin-4-ylmethyl)-1H-indol-1-yl]-5H,6H,7H,8H-pyrido[4,3-d]pyrimidin-4-amine;

N-benzyl-2-(2-methoxy-1H-indol-1-yl)-6-methyl-5H,6H,7H,8H-pyrido[4,3-d]pyrimidin-4-amine;

{1-[4-(benzylamino)-5H,6H,7H,8H-pyrido[4,3-d]pyrimidin-2-yl]-1H-indol-2-yl}methanol;

1-{1-[4-(benzylamino)-5H,6H,7H,8H-pyrido[4,3-d]pyrimidin-2-yl]-1H-indol-2-yl}ethan-1-ol;

N-benzyl-2-[2-(methoxymethyl)-1H-indol-1-yl]-5H,6H,7H,8H-pyrido[4,3-d]pyrimidin-4-amine;

N-benzyl-2-{2-[(dimethylamino)methyl]-1H-indol-1-yl}-5H,6H,7H,8H-pyrido[4,3-d]pyrimidin-4-amine;

N-({1-[4-(benzylamino)-5H,6H,7H,8H-pyrido[4,3-d]pyrimidin-2-yl]-1H-indol-2-yl}methyl)acetamide;

({1-[4-(benzylamino)-5H,6H,7H,8H-pyrido[4,3-d]pyrimidin-2-yl]-1H-indol-2-yl}methyl)urea;

methyl N-({1-[4-(benzylamino)-5H,6H,7H,8H-pyrido[4,3-d]pyrimidin-2-yl]-1H-indol-2-yl}methyl)carbamate;

N-({1-[4-(benzylamino)-5H,6H,7H,8H-pyrido[4,3-d]pyrimidin-2-yl]-1H-indol-2-yl}methyl)methanesulfonamide;

1-[4-(benzylamino)-5H,6H,7H,8H-pyrido[4,3-d]pyrimidin-2-yl]-2,3-dihydro-1H-indol-2-one;

{1-[4-(benzylamino)-5H,6H,7H,8H-pyrido[4,3-d]pyrimidin-2-yl]-1H-indol-2-yl}methyl carbamate;

N-benzyl-2-(2,4-dimethyl-1H-indol-1-yl)-5H,6H,7H,8H-pyrido[4,3-d]pyrimidin-4-amine;

N-benzyl-2-(4-fluoro-2-methyl-1H-indol-1-yl)-5H,6H,7H,8H-pyrido[4,3-d]pyrimidin-4-amine;
 1-[4-(benzylamino)-5H,6H,7H,8H-pyrido[4,3-d]pyrimidin-2-yl]-2-methyl-1H-indole-4-carbonitrile;
 1-[4-(benzylamino)-5H,6H,7H,8H-pyrido[4,3-d]pyrimidin-2-yl]-2-methyl-1H-indole-6-carbonitrile;
 N-benzyl-2-(4-methoxy-2-methyl-1H-indol-1-yl)-5H,6H,7H,8H-pyrido[4,3-d]pyrimidin-4-amine;
 N-benzyl-2-[2-(trifluoromethyl)-1H-indol-1-yl]-5H,6H,7H,8H-pyrido[4,3-d]pyrimidin-4-amine;
 N-benzyl-6-methyl-2-(2-methyl-1H-indol-1-yl)-5H,6H,7H,8H-pyrido[4,3-d]pyrimidin-4-amine;
 N-benzyl-2-[2-(propan-2-yl)-1H-indol-1-yl]-5H,6H,7H,8H-pyrido[4,3-d]pyrimidin-4-amine;
 N-benzyl-2-(2-ethyl-1H-indol-1-yl)-5H,6H,7H,8H-pyrido[4,3-d]pyrimidin-4-amine;
 1-[4-(benzylamino)-5H,6H,7H,8H-pyrido[4,3-d]pyrimidin-2-yl]-1H-indole-2-carboxamide;
 N-benzyl-2-(4-chloro-2-methyl-1H-indol-1-yl)-5H,6H,7H,8H-pyrido[4,3-d]pyrimidin-4-amine;
 N-benzyl-6-ethyl-2-(2-methyl-1H-indol-1-yl)-5H,6H,7H,8H-pyrido[4,3-d]pyrimidin-4-amine;
 N-benzyl-2-(2-methyl-1H-indol-1-yl)-6-(propan-2-yl)-5H,6H,7H,8H-pyrido[4,3-d]pyrimidin-4-amine;
 N-benzyl-2-(2-methyl-1H-indol-1-yl)-6-propyl-5H,6H,7H,8H-pyrido[4,3-d]pyrimidin-4-amine;
 1-[4-(benzylamino)-5H,6H,7H,8H-pyrido[4,3-d]pyrimidin-2-yl]-2-methyl-1H-indole-4-carboxamide;
 1-[4-(benzylamino)-5H,6H,7H,8H-pyrido[4,3-d]pyrimidin-2-yl]-2-methoxy-1H-indole-4-carbonitrile;
 4-(benzylamino)-2-(2-methyl-1H-indol-1-yl)-5H,6H,7H,8H-pyrido[4,3-d]pyrimidin-6-ol;

1-[4-(benzylamino)-6-methyl-5H,6H,7H,8H-pyrido[4,3-d]pyrimidin-2-yl]-2-methyl-1H-indole-4-carbonitrile;

N-benzyl-2-[2-methyl-4-(trifluoromethyl)-1H-indol-1-yl]-5H,6H,7H,8H-pyrido[4,3-d]pyrimidin-4-amine;

N-benzyl-2-(2-chloro-1H-indol-1-yl)-5H,6H,7H,8H-pyrido[4,3-d]pyrimidin-4-amine;

1-[4-(benzylamino)-6-ethyl-5H,6H,7H,8H-pyrido[4,3-d]pyrimidin-2-yl]-2-methyl-1H-indole-4-carbonitrile;

1-[4-(benzylamino)-2-(2-methyl-1H-indol-1-yl)-5H,6H,7H,8H-pyrido[4,3-d]pyrimidin-6-yl]prop-2-yn-1-one;

1-[4-(benzylamino)-2-(2-methyl-1H-indol-1-yl)-5H,6H,7H,8H-pyrido[4,3-d]pyrimidin-6-yl]prop-2-en-1-one;

4-(benzylamino)-2-(2-methyl-1H-indol-1-yl)-5H,6H,7H,8H-pyrido[4,3-d]pyrimidine-6-carbaldehyde;

N-{1-[4-(benzylamino)-5H,6H,7H,8H-pyrido[4,3-d]pyrimidin-2-yl]-2-methyl-1H-indol-4-yl}acetamide;

1-[4-(benzylamino)-5H,6H,7H,8H-pyrido[4,3-d]pyrimidin-2-yl]-N,2-dimethyl-1H-indole-4-carboxamide;

1-[4-(benzylamino)-5H,6H,7H,8H-pyrido[4,3-d]pyrimidin-2-yl]-N,N,2-trimethyl-1H-indole-4-carboxamide;

1-[4-(benzylamino)-5H,6H,7H,8H-pyrido[4,3-d]pyrimidin-2-yl]-2-methyl-N-(propan-2-yl)-1H-indole-4-carboxamide;

1-[4-(benzylamino)-5H,6H,7H,8H-pyrido[4,3-d]pyrimidin-2-yl]-N-(butan-2-yl)-2-methyl-1H-indole-4-carboxamide;

1-[4-(benzylamino)-5H,6H,7H,8H-pyrido[4,3-d]pyrimidin-2-yl]-1H-indole-4-carboxamide;

1-[4-(benzylamino)-5H,6H,7H,8H-pyrido[4,3-d]pyrimidin-2-yl]-2-methyl-2,3-dihydro-1H-indole-4-carboxamide;

1-[4-(benzylamino)-5H,6H,7H,8H-pyrido[4,3-d]pyrimidin-2-yl]-2-methyl-2,3-dihydro-1H-indole-4-carbonitrile;

1-[6-(2-aminoacetyl)-4-(benzylamino)-5H,6H,7H,8H-pyrido[4,3-d]pyrimidin-2-yl]-2-methyl-1H-indole-4-carbonitrile;

1-[4-(benzylamino)-6-(2-methoxyacetyl)-5H,6H,7H,8H-pyrido[4,3-d]pyrimidin-2-yl]-2-methyl-1H-indole-4-carbonitrile;

1-[4-(benzylamino)-5H,6H,7H,8H-pyrido[4,3-d]pyrimidin-2-yl]-2-methoxy-1H-indole-4-carboxamide;

1-[4-(benzylamino)-5H,6H,7H,8H-pyrido[4,3-d]pyrimidin-2-yl]-2-methyl-1H-indole-4-sulfonamide;

1-[4-(benzylamino)-5H,6H,7H,8H-pyrido[4,3-d]pyrimidin-2-yl]-2-methyl-1H-indole-4-carboxylic acid;

N-benzyl-2-(4-methanesulfonyl-2-methyl-1H-indol-1-yl)-5H,6H,7H,8H-pyrido[4,3-d]pyrimidin-4-amine;

1-[4-(benzylamino)-5H,6H,7H,8H-pyrido[4,3-d]pyrimidin-2-yl]-2-(2-methoxyethoxy)-1H-indole-4-carboxamide;

N-benzyl-2-(2-methyl-1H-indol-1-yl)-5H,6H,7H,8H-pyrido[3,4-d]pyrimidin-4-amine;

tert-butyl 4-(benzylamino)-2-(2-methyl-1H-indol-1-yl)-5H,6H,7H,8H-pyrido[3,4-d]pyrimidine-7-carboxylate;

1-[4-(benzylamino)-2-(2-methyl-1H-indol-1-yl)-5H,6H,7H,8H-pyrido[3,4-d]pyrimidin-7-yl]ethan-1-one;

tert-butyl 4-(benzylamino)-2-(2-methoxy-1H-indol-1-yl)-8-oxo-5H,6H,7H,8H-pyrido[3,4-d]pyrimidine-7-carboxylate;

2-[2-(aminomethyl)-1H-indol-1-yl]-N-benzyl-5H,6H,7H,8H-pyrido[3,4-d]pyrimidin-4-amine;

N-benzyl-2-(2-methoxy-1H-indol-1-yl)-5H,6H,7H,8H-pyrido[3,4-d]pyrimidin-4-amine;

1-{2-[2-(aminomethyl)-1H-indol-1-yl]-4-(benzylamino)-5H,6H,7H,8H-pyrido[3,4-d]pyrimidin-7-yl}ethan-1-one;

2-[2-(aminomethyl)-1H-indol-1-yl]-N-benzyl-7-ethyl-5H,6H,7H,8H-pyrido[3,4-d]pyrimidin-4-amine;

methyl 2-[2-(aminomethyl)-1H-indol-1-yl]-4-(benzylamino)-5H,6H,7H,8H-pyrido[3,4-d]pyrimidine-7-carboxylate;

N-benzyl-2-(2-methyl-1H-indol-1-yl)-5H,6H,7H,8H-pyrido[3,4-d]pyrimidin-4-amine; and

N-benzyl-2-(2-methyl-1H-indol-1-yl)-5H,6H,7H-pyrrolo[3,4-d]pyrimidin-4-amine.

8. A fused pyrimidine compound according to any of claims 1, 2 or 3, wherein A is CH₂.
9. A fused pyrimidine compound according to any of claims 1, 2 or 3, wherein A is NR¹.
10. A fused pyrimidine compound according to any of claims 1, 2 or 3, wherein A is O.
11. A fused pyrimidine compound according to claim 1 having any of the following IUPAC names:
 - a) 1-[4-(benzylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]-2-methyl-1H-indole-4-carbonitrile;
 - b) 1-[4-(benzylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]-2-methyl-1H-indole-4-carboxamide;
 - c) 1-[4-(benzylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]-2-methoxy-1H-indole-4-carboxamide;
 - d) 1-[4-(benzylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]-2-ethoxy-1H-indole-4-carboxamide;
 - e) 1-[4-(benzylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]-2-(2-methoxyethoxy)-1H-indole-4-carbonitrile;
 - f) 1-[4-(benzylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]-2-cyclopropyl-1H-indole-4-carboxamide;
 - g) N-({1-[4-(benzylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]-1H-indol-2-yl}methyl)prop-2-ynamide;
 - h) N-benzyl-2-[2-methyl-4-(1H-1,2,3,4-tetrazol-5-yl)-1H-indol-1-yl]-5,6,7,8-tetrahydroquinazolin-4-amine;
 - i) 1-[4-(benzylamino)-5H,7H,8H-pyrano[4,3-d]pyrimidin-2-yl]-2-methoxy-1H-indole-4-carboxamide;

- j) 1-[4-(benzylamino)-5H,7H,8H-pyrano[4,3-d]pyrimidin-2-yl]-2-methyl-1H-indole-4-carboxamide;
- k) 1-(4-[(3-fluorophenyl)methyl]amino)-5H,7H,8H-pyrano[4,3-d]pyrimidin-2-yl)-2-methyl-1H-indole-4-carboxamide;
- l) 1-[4-(benzylamino)-5H,7H,8H-pyrano[4,3-d]pyrimidin-2-yl]-2-methyl-1H-indole-4-carboxylic acid;
- m) -benzyl-2-(2-methyl-1H-indol-1-yl)-5H,6H,7H,8H-pyrido[4,3-d]pyrimidin-4-amine;
- n) 1-[4-(benzylamino)-5H,6H,7H,8H-pyrido[4,3-d]pyrimidin-2-yl]-2-methyl-1H-indole-4-carboxamide;
- o) 1-[4-(benzylamino)-5H,6H,7H,8H-pyrido[4,3-d]pyrimidin-2-yl]-2-methyl-1H-indole-4-carboxylic acid;
- p) 2-[4-(aminomethyl)-2-methyl-1H-indol-1-yl]-N-benzyl-5,6,7,8-tetrahydroquinazolin-4-amine;
- q) 1-[4-(benzylamino)-2-(2-methyl-1H-indol-1-yl)-5H,6H,7H,8H-pyrido[3,4-d]pyrimidin-7-yl]prop-2-yn-1-one;
- r) 1-[4-(benzylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]-2-methyl-1H-indole-4-sulfonamide;
- s) N-benzyl-2-(4-methanesulfonyl-2-methyl-1H-indol-1-yl)-5,6,7,8-tetrahydroquinazolin-4-amine;
- t) 1-[4-(benzylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]-N-methyl-2-methyl-1H-indole-4-carboxamide;
- 1-[4-(benzylamino)-5H,7H,8H-pyrano[4,3-d]pyrimidin-2-yl]-N,2-dimethyl-1H-indole-4-carboxamide.

12. A fused pyrimidine compound according to claim 1 having any of the following IUPAC names:

- a) 1-[4-(benzylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]-2-methyl-1H-indole-4-carboxamide;
- b) 1-[4-(benzylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]-2-methoxy-1H-indole-4-carboxamide;
- c) 1-[4-(benzylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]-2-ethoxy-1H-indole-4-carboxamide;

- d) 1-[4-(benzylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]-2-(2-methoxyethoxy)-1H-indole-4-carbonitrile;
- e) 1-[4-(benzylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]-2-cyclopropyl-1H-indole-4-carboxamide;
- f) N-benzyl-2-[2-methyl-4-(1H-1,2,3,4-tetrazol-5-yl)-1H-indol-1-yl]-5,6,7,8-tetrahydroquinazolin-4-amine;
- g) 1-[4-(benzylamino)-5H,7H,8H-pyrano[4,3-d]pyrimidin-2-yl]-2-methoxy-1H-indole-4-carboxamide;
- h) 1-[4-(benzylamino)-5H,7H,8H-pyrano[4,3-d]pyrimidin-2-yl]-2-methyl-1H-indole-4-carboxamide;
- i) 1-(4-[(3-fluorophenyl)methyl]amino)-5H,7H,8H-pyrano[4,3-d]pyrimidin-2-yl)-2-methyl-1H-indole-4-carboxamide;
- j) 1-[4-(benzylamino)-5H,7H,8H-pyrano[4,3-d]pyrimidin-2-yl]-2-methyl-1H-indole-4-carboxylic acid;
- k) 1-[4-(benzylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]-N-methyl-2-methyl-1H-indole-4-carboxamide.

13. A fused pyrimidine compound according to claim 1 having the IUPAC name:

1-[4-(benzylamino)-5H,7H,8H-pyrano[4,3-d]pyrimidin-2-yl]-1H-indole-4-carboxamide.

14. A pharmaceutical composition comprising a pharmaceutically acceptable carrier and an amount of a compound of any of claims 1 to 6.

15. A compound of any of any one of claims 1 to 6 for use in decreasing Valosin containing protein activity or of decreasing degradation of a proteasome system substrate.

16. A compound of claim 1 for use as inhibitor of p97.

17. Use of a compound of any one of claims 1 to 6 in the manufacture of a medicament for the treatment of cancer.