* **IN THE HIGH COURT OF DELHI AT NEW DELHI**

% Judgement reserved on: 04.05.2026
Judgment delivered on: 11.05.2026

\+ C.A.(COMM.IPD-PAT) 464/2022

HANMI PHARM. CO. LTD. .....Appellant

versus

THE CONTROLLER GENERAL OF PATENTS AND DESIGNS
.....Respondent

**Advocates who appeared in this case:**

For the Appellant: Mr. Sanuj Das and Ms. Aditi Subramaniam, Advocates.

For the Respondent : Ms. Radhika Bishwajit Dubey, CGSC with Ms. Gurleen Kaur Waraich and Mr. Kritarth Upadhyay, Advocates.

**CORAM:**
**HON'BLE MR. JUSTICE TUSHAR RAO GEDELA**

**J U D G M E N T**

**TUSHAR RAO GEDELA, J.**

1. The present appeal has been filed under Section 117A of the Patents Act, 1970 (hereinafter referred to as '*the Act*') assailing the order dated 25.04.2022 (hereinafter referred to as "*the impugned order"*) passed by the Controller of Patents & Designs refusing the Indian Patent Application bearing no.6101/DELNP/2014 (hereinafter referred to as '*subject application*'), on the ground of lack of inventive step under Section 2(1)(ja) and non-patentability under Section 3(d) of the Act.

2. The subject application was filed on 21.07.2014 as a National Phase Application out of PCT International Application No.PCT/KR2012/011571

filed on 27.12.2012, claiming priority from Korean Priority Application No.10-2011-0146818 filed on 30.12.2011.

3. The First Examination Report (hereinafter referred to as '*FER*') was issued on 16.01.2018, wherein, the respondent raised objections related to lack of novelty, lack of inventive step, lack of patentability under Section 3(d), 3(e) and 3(i) amongst others. The response thereto was submitted by the appellant on 28.06.2018 along with an amended set of twenty three (23) claims.

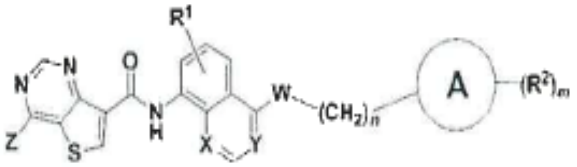
4. Thereafter, the hearing notice was issued on 12.04.2021, scheduling the hearing on 13.05.2021, which was attended by the appellant. The said notice of hearing was issued retaining the objections of lack of novelty, inventive step and lack of patentability of the amended claims under Section 3(d) of the Act.

5. On 24.06.2021, Divisional Application No.202118028356 was filed out of Indian Patent Application No.6101/DELNP/2014, which is currently under examination. On 24.06.2021, the appellant filed post-hearing written submissions along with an amended set of twenty two (22) claims.

6. The amended set of claims filed alongwith the post-hearing written submissions on 24.06.2021 are reproduced hereunder:-

**We claim:**

1. A thieno[3,2-d]pyrimidine derivative of formula (I) or a pharmaceutically acceptable salt thereof:



(I)

wherein,

A is $C_{6-10}$ aryl or 5- to 10-membered heteroaryl;

W is O, NH, or -NHNH-;

X is CH and Y is N;

Z is hydrogen or $NR^3R^4$, wherein said $R^3$ and $R^4$ are each independently hydrogen, $C_{1-6}$ alkyl or -$(CH_2)$q-B, B representing $NR^5R^6$ or $C_{3-6}$ cycloalkyl;

$R^1$ is hydrogen or $C_{1-3}$ alkyl, wherein said alkyl is unsubstituted or substituted with one or more halogen atoms;

each $R^2$ is independently hydrogen, halogen, $-CF_3$, -OH, -CN, $C_{1-6}$ alkoxy, $C_{1-6}$ alkyl, $C_{2-4}$ alkynyl, $-NR^7R^8$, $-NHSO_2R^9$, $-SO_2R^{10}$, $-C(O)R^{11}$, $-NHC(O)R^{12}$, $-S(O)R^{14}$, 5- to 10-membered heterocycloalkyl, $C_{6-10}$ aryloxy, or 5- to 10-membered heteroaryl, wherein said $R^2$ is connected to A by $-(CH_2)_p-$ or substituted with $C_{1-4}$ alkyl, $C_{2-4}$alkynyl, or one or more halogen atoms;

$R^5$, $R^6$, $R^7$, $R^8$, $R^9$, $R^{10}$, $R^{11}$, $R^{12}$ and $R^{14}$ are each independently hydrogen, $-NH_2$, $C_{1-6}$ alkyl, $C_{1-6}$ alkoxy or $C_{3-6}$ cycloalkyl, said alkyl, alkoxy or cycloalkyl being unsubstituted or substituted with one or more halogen atoms;

q is 0;

p is an integer ranging from 0 to 1;

m is an integer ranging from 0 to 3; and

n is an integer ranging from 0 to 1.

2. The thieno[3,2-d]pyrimidine derivative or a pharmaceutically acceptable salt thereof as claimed in claim 1, wherein W is NH.

3. The thieno[3,2-d]pyrimidine derivative or a pharmaceutically acceptable salt thereof as claimed in claim 1, wherein Z is $NR^3R^4$.

4. The thieno[3,2-d]pyrimidine derivative or a pharmaceutically acceptable salt thereof as claimed in claim 1, wherein W is NH and Z is $NR^3R^4$.

5. The thieno[3,2-d]pyrimidine derivative or a pharmaceutically acceptable salt thereof as claimed in claim 1, which is selected from the group consisting of:

1) 4-amino-N-(1-((4-chlorophenyl)amino)-6-methylisoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

2) 4-amino-N-(6-methyl-1-((3-(trifluoromethyl)phenyl)amino)isoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

3) N-(1-((4-chlorophenyl)amino)-6-methylisoquinolin-5-yl)-4-(cyclopropylamino)thieno[3,2-d]pyrimidine-7-carboxamide;

4) 4-(cyclopropylamino)-N-(6-methyl-1-((3-(trifluoromethyl)phenyl)amino)isoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

5) 4-amino-N-(6-methyl-1-((3-(4-methyl-1H-imidazol-1-yl)-5-(trifluoromethyl)phenyl)amino)isoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

6) 4-(cyclopropylamino)-N-(6-methyl-1-((3-(4-methyl-1H-imidazol-1-yl)-5-(trifluoromethyl)phenyl)amino)isoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

7) 4-amino-N-(1-((4-((4-ethylpiperazin-1-yl)methyl)-3-(trifluoromethyl)phenyl)amino)-6-methylisoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

8) 4-(cyclopropylamino)-N-(1-((4-((4-ethylpiperazin-1-yl)methyl)-3-(trifluoromethyl)phenyl)amino)-6-methylisoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

9) N-(1-((4-((4-ethylpiperazin-1-yl)methyl)-3-(trifluoromethyl)phenyl)amino)-6-methylisoquinolin-5-yl)-4-(methylamino)thieno[3,2-d]pyrimidine-7-carboxamide;

10) 4-amino-N-(1-((4-(4-ethylpiperazin-1-yl)phenyl)amino)-6-methylisoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

11) 4-amino-N-(1-((4-((4-ethylpiperazin-1-yl)methyl)phenyl)amino)-6-methylisoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

12) 4-amino-N-(6-methyl-1-((3-(trifluoromethyl)phenyl)amino)isoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

13) 4-amino-N-(1-((4-chloro-3-(trifluoromethyl)phenyl)amino)-6-methylisoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

14) 4-amino-N-(1-((2-methoxy-5-(trifluoromethyl)phenyl)amino)-6-methylisoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

15) 4-amino-N-(6-methyl-1-((4-(trifluoromethyl)phenyl)amino)isoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

16) 4-amino-N-(1-((4-methoxyphenyl)amino)-6-methylisoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

17) 4-amino-N-(6-methyl-1-(p-tolylamino)isoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

18) 4-amino-N-(1-((4-isopropylphenyl)amino)-6-methylisoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

19) 4-amino-N-(1-((5-(t-butyl)isoxazol-3-yl)amino)-6-methylisoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

20) 4-amino-N-(1-((4-fluorophenyl)amino)-6-methylisoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

21) 4-amino-N-(6-methyl-1-(thiazol-2-ylamino)isoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

22) 4-amino-N-(1-((4-cyanophenyl)amino)-6-methylisoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

23) 4-amino-N-(6-methyl-1-(quinolin-5-ylamino)isoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

24) 4-amino-N-(1-((4-ethoxyphenyl)amino)-6-methylisoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

25) 4-amino-N-(6-methyl-1-((4-phenoxyphenyl)amino)isoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

26) 4-amino-N-(1-((4-hydroxyphenyl)amino)-6-methylisoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

27) 4-amino-N-(1-((4-isopropoxyphenyl)amino)-6-methylisoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

28) 4-amino-N-(1-((4-(dimethylamino)-6-methylisoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

30) 4-amino-N-(1-((3,4-dimethoxyphenyl)amino)-6-methylisoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

31) 4-amino-N-(1-((3-fluoro-4-methoxyphenyl)amino)-6-methylisoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

32) 4-amino-N-(6-methyl-1-((3,4,5-trimethoxyphenyl)amino)isoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

37) 4-(cyclopropylamino)-N-(1-((4-methoxyphenyl)amino)-6-methylisoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

38) 4-amino-N-(1-((3-chlorophenyl)amino)-6-methylisoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

39) 4-amino-N-(1-((3-bromophenyl)amino)-6-methylisoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

40) 4-amino-N-(1-((2,4-dichlorophenyl)amino)-6-methylisoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

41) 4-amino-N-(1-((3,4-dichlorophenyl)amino)-6-methylisoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

42) 4-amino-N-(1-((3,5-dichlorophenyl)amino)-6-methylisoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

43) 4-amino-N-(6-methyl-1-((3,4,5-trichlorophenyl)amino)isoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

44) 4-amino-N-(1-((4-chloro-3-methoxyphenyl)amino)-6-methylisoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

45) 4-amino-N-(1-benzylamino-6-methylisoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

46) 4-amino-N-(6-methyl-1-phenoxyisoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

47) 4-amino-N-(6-methyl-1-((4-morpholinophenyl)amino)isoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

48) N-(1-((4-(1H-pyrrol-1-yl)phenyl)amino)-6-methylisoquinolin-5-yl)-4-aminothieno[3,2-d]pyrimidine-7-carboxamide;

49) 4-amino-N-(6-methyl-1-(pyrimidin-4-ylamino)isoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

50) 4-amino-N-(1-((4-(difluoromethoxy)phenyl)amino)-6-methylisoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

51) 4-amino-N-(6-methyl-1-((4-(trifluoromethoxy)phenyl)amino)isoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

52) 4-amino-N-(1-((4-chlorophenyl)amino)isoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

57) 4-amino-N-(1-((4-(fluoromethoxy)phenyl)amino)-6-methylisoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

58) N-(1-(4-chlorophenylamino)-6-methylisoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

59) 4-amino-N-(1-((4-chloro-3-((dimethylamino)methyl)phenyl)amino)-6-methylisoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

60) 4-amino-N-(1-((4-chloro-3-(pyrrolidin-1-ylmethyl)phenyl)amino)-6-methylisoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

61) 4-amino-N-(1-((4-chloro-3-((diethylamino)methyl)phenyl)amino)-6-methylisoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

63) 4-amino-N-(1-((4-chloro-3-(piperidin-1-ylmethyl)phenyl)amino)-6-methylisoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

64) 4-amino-N-(1-((4-chloro-3-(morpholinomethyl)phenyl)amino)-6-methylisoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

65) 4-amino-N-(1-((4-chloro-3-((4-methylpiperazin-1-yl)methyl)phenyl)amino)-6-methylisoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

66) 4-amino-N-(1-((4-chloro-3-((diisopropylamino)methyl)phenyl)amino)-6-methylisoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

67) 4-amino-N-(6-methyl-1-((3-(methylsulfonamido)phenyl)amino)isoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

68) tert-butyl 4-(5-((5-(4-aminothieno[3,2-d]pyrimidine-7-carboxamido)-6-methylisoquinolin-1-yl)amino)-2-chlorobenzyl)piperazine-1-carboxylate;

69) 4-amino-N-(1-((4-chloro-3-(piperazin-1-ylmethyl)phenyl)amino)-6-methylisoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

70) 4-amino-N-(1-((3-chloro-4-methoxyphenyl)amino)-6-methylisoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

73) 4-amino-N-(1-((4-chloro-2-fluorophenyl)amino)-6-methylisoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

74) 4-amino-N-(1-((4-bromo-2-fluorophenyl)amino)-6-methylisoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

75) 4-amino-N-(1-((4-methoxybenzyl)amino)-6-methylisoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

76) 4-amino-N-(1-((4-chlorobenzyl)amino)-6-methylisoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

77) 4-amino-N-(1-(2-(4-chlorophenyl)hydrazinyl)-6-methylisoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

78) 4-amino-N-(1-((3-((dimethylamino)methyl)phenyl)amino)-6-methylisoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

79) 4-amino-N-(6-methyl-1-((4-oxo-4H-chromen-6-yl)amino)isoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

80) N-(1-((3-acetylphenyl)amino)-6-methylisoquinolin-5-yl)-4-aminothieno[3,2-d]pyrimidine-7-carboxamide;

82) 4-amino-N-(6-methyl-1-((3-(trifluoromethoxy)phenyl)amino)isoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

83) N-(1-((4-acetylphenyl)amino)-6-methylisoquinolin-5-yl)-4-aminothieno[3,2-d]pyrimidine-7-carboxamide;

84) 4-amino-N-(6-methyl-1-((4-(methylsulfonamido)phenyl)amino)isoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

85) 4-amino-N-(6-methyl-1-((3-(methylsulfonyl)phenyl)amino)isoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

86) 4-amino-N-(1-((4-chloro-3-(methoxymethyl)phenyl)amino)-6-methylisoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

87) 4-amino-N-(1-((4-methoxy-3-(methylsulfonamido)phenyl)amino)-6-methylisoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

88) 4-amino-N-(1-((4-chloro-3-(methylsulfonamido)phenyl)amino)-6-methylisoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

89) 4-amino-N-(1-((6-chloropyridin-3-yl)amino)-6-methylisoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

90) 4-amino-N-(1-((2-chloropyridin-4-yl)amino)-6-methylisoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

91) 4-amino-N-(6-methyl(4-(methylsulfonamidomethyl)phenyl)amino)isoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

92) 4-amino-N-(6-methyl-1-((3-(methylsulfonamidomethyl)phenyl)amino)isoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

93) 4-amino-N-(1-((4-chloro-3-fluorophenyl)amino)-6-methylisoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

94) 4-amino-N-(1-((3-bromo-4-chlorophenyl)amino)-6-methylisoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

96) N-(1-((3-acetamidophenyl)amino)-6-methylisoquinolin-5-yl)-4-aminothieno[3,2-d]pyrimidine-7-carboxamide;

97) 4-amino-N-(6-methyl-1-((1-methyl-1H-indazol-6-yl)amino)isoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

98) 4-amino-N-(6-methyl-1-((4-(methylsulfinyl)phenyl)amino)isoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

99) 4-amino-N-(6-methyl-1-((2-methyl-1,3-dioxoisoindolin-5-yl)amino)isoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

100) 4-amino-N-(1-((6-methoxypyridin-3-yl)amino)-6-methylisoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

101) 4-amino-N-(6-methyl-1-((3-(2,2,2-trifluoroacetyl)phenyl)amino)isoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

102) 4-amino-N-(6-methyl-1-((4-propionylphenyl)amino)isoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

103) 4-amino-N-(1-((4-hexanoylphenyl)amino)-6-methylisoquinolin-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

104) N-(1-((1-acetyl-1H-indazol-6-yl)amino)-6-methylisoquinolin-5-yl)-4-aminothieno[3,2-d]pyrimidine-7-carboxamide;

105) 4-amino-N-(1-((3-chloro-4-fluorophenyl)amino)-6-methylisoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

107) 4-amino-N-(6-methyl-1-((2-methyl-2H-indazol-6-yl)amino)isoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

108) methyl 4-((5-(4-aminothieno[3,2-d]pyrimidine-7-carboxamido)-6-methylisoquinolin-1-yl)amino)benzoate;

109) 4-amino-N-(6-methyl-1-((1-methyl-1H-indazol-5-yl)amino)isoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

110) 4-amino-N-(6-methyl-1-((2-methyl-2H-indazol-5-yl)amino)isoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

111) 4-amino-N-(6-methyl-1-((6-methylpyridin-3-yl)amino)isoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

112) 4-amino-N-(6-methyl-1-((1-methyl-1H-indol-6-yl)amino)isoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

113) tert-butyl 6-((5-(4-aminothieno[3,2-d]pyrimidine-7-carboxamido)-6-methylisoquinolin-1-yl)amino)-1H-indazol-1-carboxylate;

114) N-(1-((1H-indazol-6-yl)amino)-6-methylisoquinolin-5-yl)-4-aminothieno[3,2-d]pyrimidine-7-carboxamide hydrochloride;

115) 4-amino-N-(1-((5-chloro-2-fluorophenyl)amino)-6-methylisoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

116) 4-amino-N-(1-((3-chloro-2-fluorophenyl)amino)-6-methylisoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

117) 4-amino-N-(1-((3-fluoro-4-(4-methylpiperazin-1-yl)phenyl)amino)-6-methylisoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

118) 4-amino-N-(1-((3-chloro-1-methyl-1H-indazol-6-yl)amino)-6-methylisoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

119) 4-amino-N-(6-methyl-1-((4-(prop-2-yn-1-yloxy)phenyl)amino)isoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

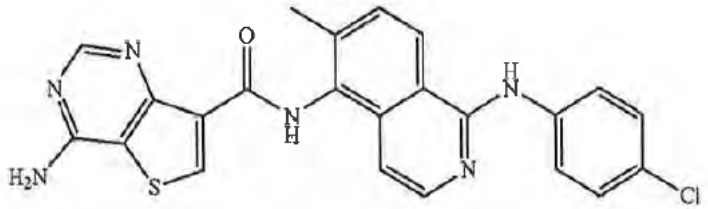
120) 4-amino-N-(1-((2-methoxy-4-morpholinophenyl)amino)-6-methylisoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

121) 4-amino-N-(1-(benzo[d]thiazol-6-ylamino)-6-methylisoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide;

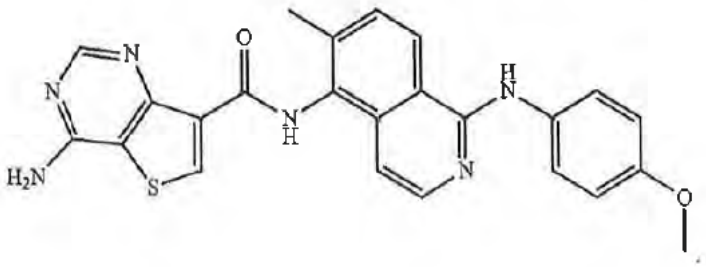
122) N-(1-((1H-indazol-5-yl)amino)-6-methylisoquinolin-5-yl)-4-aminothieno[3,2-d]pyrimidine-7-carboxamide; and

123) 4-amino-N-(1-((3-chloro-2,4-difluorophenyl)amino)-6-methylisoquinolin-5-yl)thieno[3,2-d]pyrimidine-7-carboxamide.

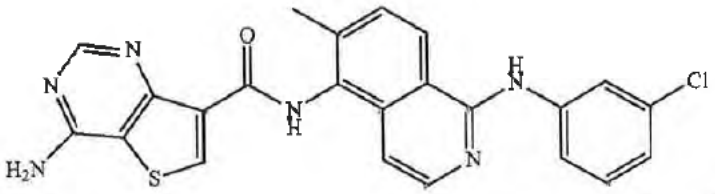
6. The thieno[3,2-d]pyrimidine derivative or a pharmaceutically acceptable salt thereof as claimed in claim 1, which is of the following structure:



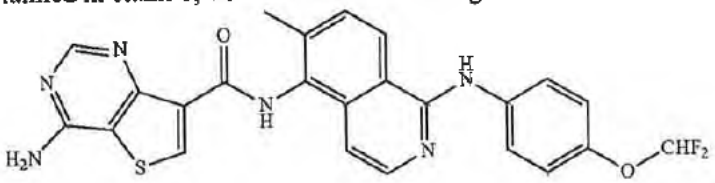
7. The thieno[3,2-d]pyrimidine derivative or a pharmaceutically acceptable salt thereof as claimed in claim 1, which is of the following structure:



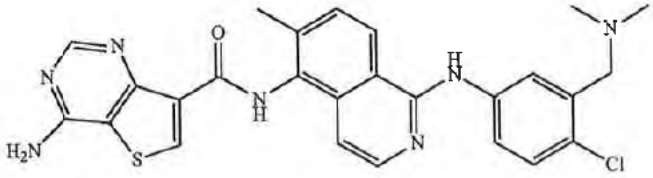
8. The thieno[3,2-d]pyrimidine derivative or a pharmaceutically acceptable salt thereof as claimed in claim 1, which is of the following structure:



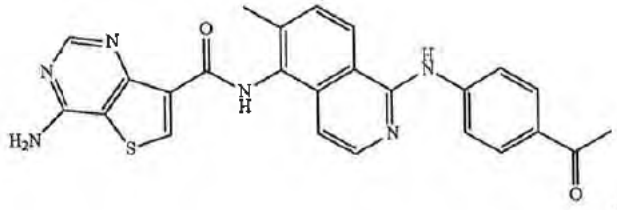
9. The thieno[3,2-d]pyrimidine derivative or a pharmaceutically acceptable salt thereof as claimed in claim 1, which is of the following structure:



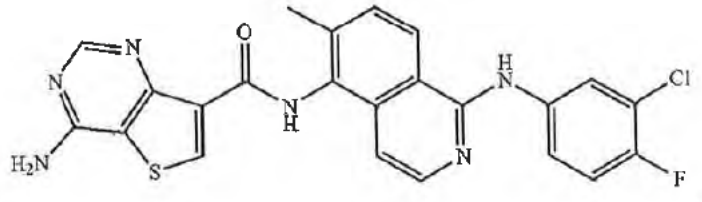
10. The thieno[3,2-d]pyrimidine derivative or a pharmaceutically acceptable salt thereof as claimed in claim 1, which is of the following structure:



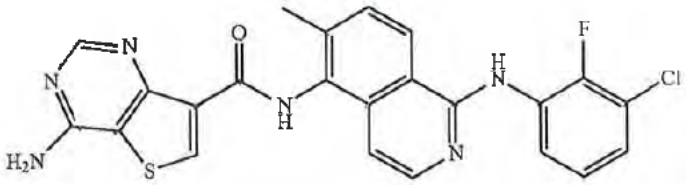
11. The thieno[3,2-d]pyrimidine derivative or a pharmaceutically acceptable salt thereof as claimed in claim 1, which is of the following structure:



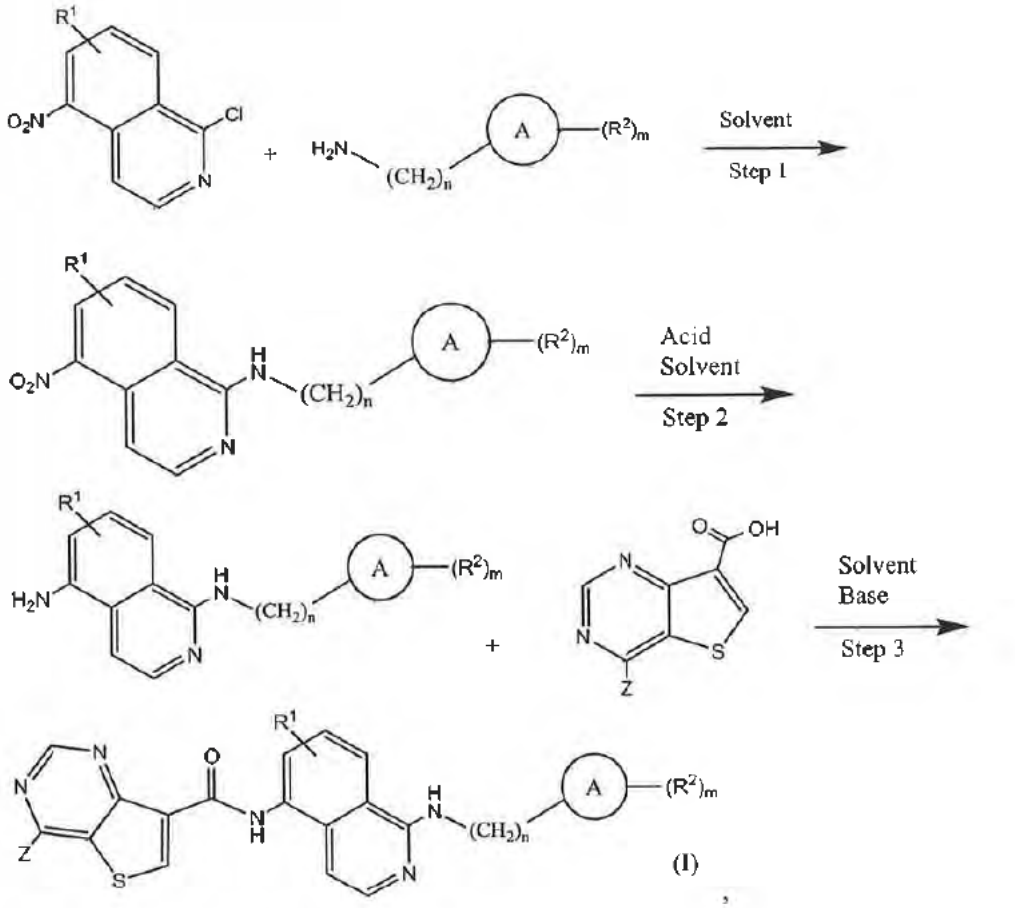
12. The thieno[3,2-d]pyrimidine derivative or a pharmaceutically acceptable salt thereof as claimed in claim 1, which is of the following structure:



13. The thieno[3,2-d]pyrimidine derivative or a pharmaceutically acceptable salt thereof as claimed in claim 1, which is of the following structure:



14. A method of preparing a thieno[3,2-d]pyrimidine compound of formula (I) or a pharmaceutically acceptable salt thereof as claimed in claim 1, the method comprising reaction steps 1 to 3:




wherein:

A is $C_{6-10}$ aryl or 5- to 10-membered heteroaryl;

Z is hydrogen or $NR^3R^4$, wherein said $R^3$ and $R^4$ are each independently hydrogen, $C_{1-6}$ alkyl or -$(CH_2)$q-B, B representing $NR^5R^6$ or $C_{3-6}$ cycloalkyl;

$R^1$ is hydrogen or $C_{1-3}$ alkyl, wherein said alkyl is unsubstituted or substituted with one or more halogen atoms;

each $R^2$ is independently hydrogen, halogen, -$CF_3$, -OH, -CN, $C_{1-6}$ alkoxy, $C_{1-6}$ alkyl, $C_{2-4}$ alkynyl, -$NR^7R^8$, -$NHSO_2R^9$, -$SO_2R^{10}$, -$C(O)R^{11}$, -$NHC(O)R^{12}$, -$S(O)R^{14}$, 5- to 10-membered heterocycloalkyl, $C_{6-10}$ aryloxy, or 5- to 10-membered heteroaryl, wherein said $R^2$ is connected to

A by -$(CH_2)_p$- or substituted with $C_{1-4}$ alkyl, $C_{2-4}$alkynyl, or one or more halogen atoms;

$R^5$, $R^6$, $R^7$, $R^8$, $R^9$, $R^{10}$, $R^{11}$, $R^{12}$ and $R^{14}$ are each independently hydrogen, -$NH_2$, $C_{1-6}$ alkyl, $C_{1-6}$ alkoxy or $C_{3-6}$ cycloalkyl, said alkyl, alkoxy or cycloalkyl being unsubstituted or substituted with one or more halogen atoms;

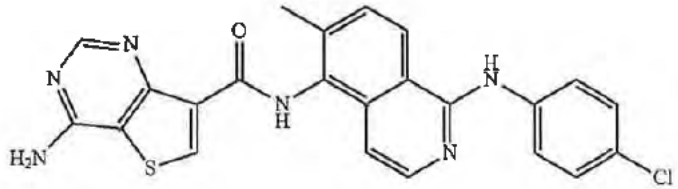
m is an integer ranging from 0 to 3;

q is 0;

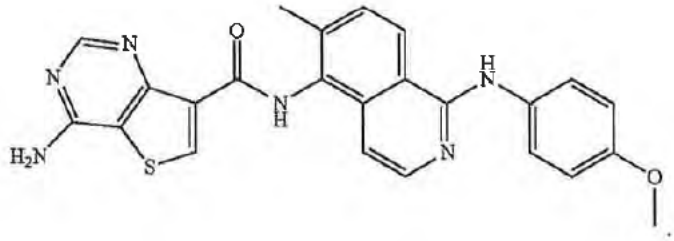
p is an integer ranging from 0 to 1; and

n is 0 or 1.

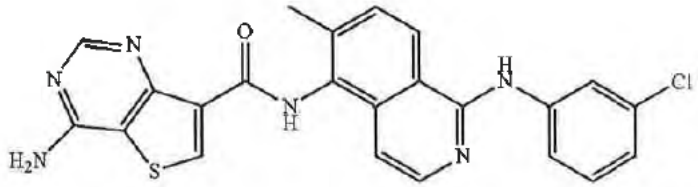
15. The method as claimed in claim 14 wherein formula (I) or a pharmaceutically acceptable salt thereof is of the structure:



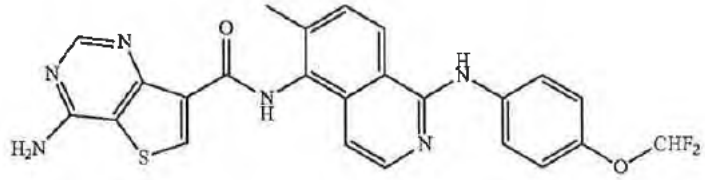
16. The method as claimed in claim 14 wherein formula (I) or a pharmaceutically acceptable salt thereof is of the structure:



17. The method as claimed in claim 14 wherein formula (I) or a pharmaceutically acceptable salt thereof is of the structure:

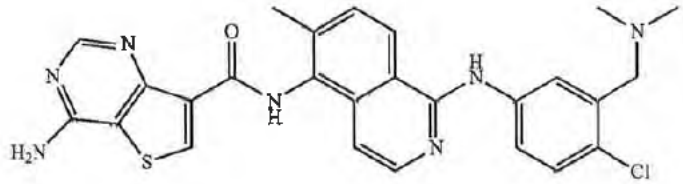


18. The method as claimed in claim 14 wherein formula (I) or a pharmaceutically acceptable salt thereof is of the structure:

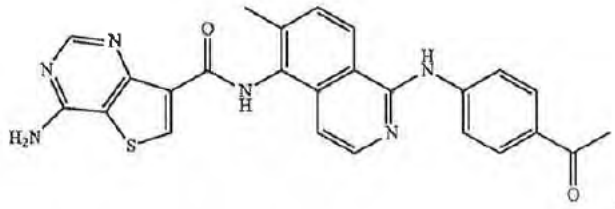


19. The method as claimed in claim 14 wherein formula (I) or a pharmaceutically acceptable

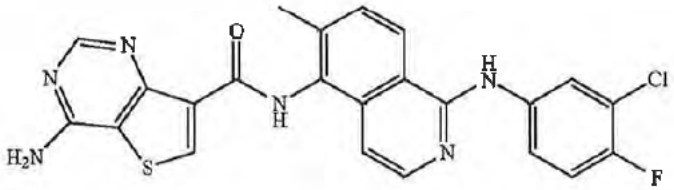
salt thereof is of the structure:



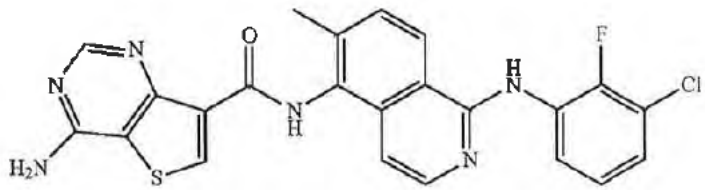
20. The method as claimed in claim 14 wherein formula (I) or a pharmaceutically acceptable salt thereof is of the structure:



21. The method as claimed in claim 14 wherein formula (I) or a pharmaceutically acceptable salt thereof is of the structure:

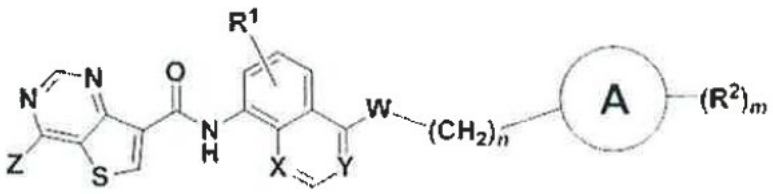


22. The method as claimed in claim 14 wherein formula (I) or a pharmaceutically acceptable salt thereof is of the structure:



7. It is important to note that the impugned order commences with the analysis of the post-hearing written submission under the heading "*C. New set of amended claims/other forms and documents filed with written submissions*." This section of the impugned order analyses Claims 1 to 13 by examining the cited prior art documents D1 and D2 and concludes the order based on the same analysis. It is observed that the Controller has not referred at all to claims 14 to 21 which are process claims, in the impugned order.

8. Claim 1 of the subject application claims the compound, *"thieno[3,2-d]pyrimidine derivative of formula (I)"* or a pharmaceutically acceptable salt thereof. The chemical structure of the formula (I) is as follows:-




(I)

"A" in the Formula (I) is 5 to 10-membered heteroaryl or a $C_{6-10}$ aryl while "W" is O, NH, or -NHNH- and "X" is CH and "Y" is N. "Z" in the Formula (I) is hydrogen or $NR^3R^4$.

9. Further, Claim 14 of the present invention claims a method of preparing a thieno[3,2-d]pyrimidine compound of Formula (I) or a pharmaceutically acceptable salt thereof which is claimed in Claim 1. The method claimed under Claim 14 comprises 3 steps.

10. However, from a perusal of the impugned order, it is apparent that the learned Controller has completely ignored Claims 14 to 22 which are the Process Claims. In such circumstances, it would be difficult to uphold the impugned order as it was incumbent upon the learned Controller to consider the Process Claims as well.

11. It would be relevant to note that a query was put to the learned CGSC for the respondent as to whether the Process Claims were dealt with in the impugned order or not, *vide* order dated 23.04.2026. Pursuant thereto, on 04.05.2026, during the hearing, the learned CGSC admitted that the Process Claims were not dealt with in the impugned order.

12. Accordingly, in view of the above discussion, the impugned order

dated 25.04.2022 passed by the learned Controller cannot be sustained and is set aside. Consequently, the matter is remanded back to the Patent Office for fresh consideration. The learned Controller shall afford a fresh opportunity of hearing to the appellant before deciding the subject application.

13. The learned Controller shall decide the matter on merits in accordance with law, uninfluenced by any observations in this decision. The matter shall be reconsidered and decided within a period of six months from the date of this decision.

14. A copy of the Order shall also be brought to the notice of the learned Controller General of Patents, Designs and Trademarks for the necessary administrative action.

15. The appeal is disposed of in the aforesaid terms.

**TUSHAR RAO GEDELA**
**(JUDGE)**

**MAY 11, 2026/***rl*