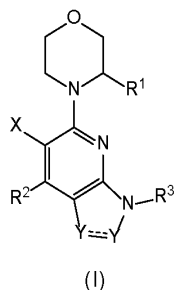


CLAIMS

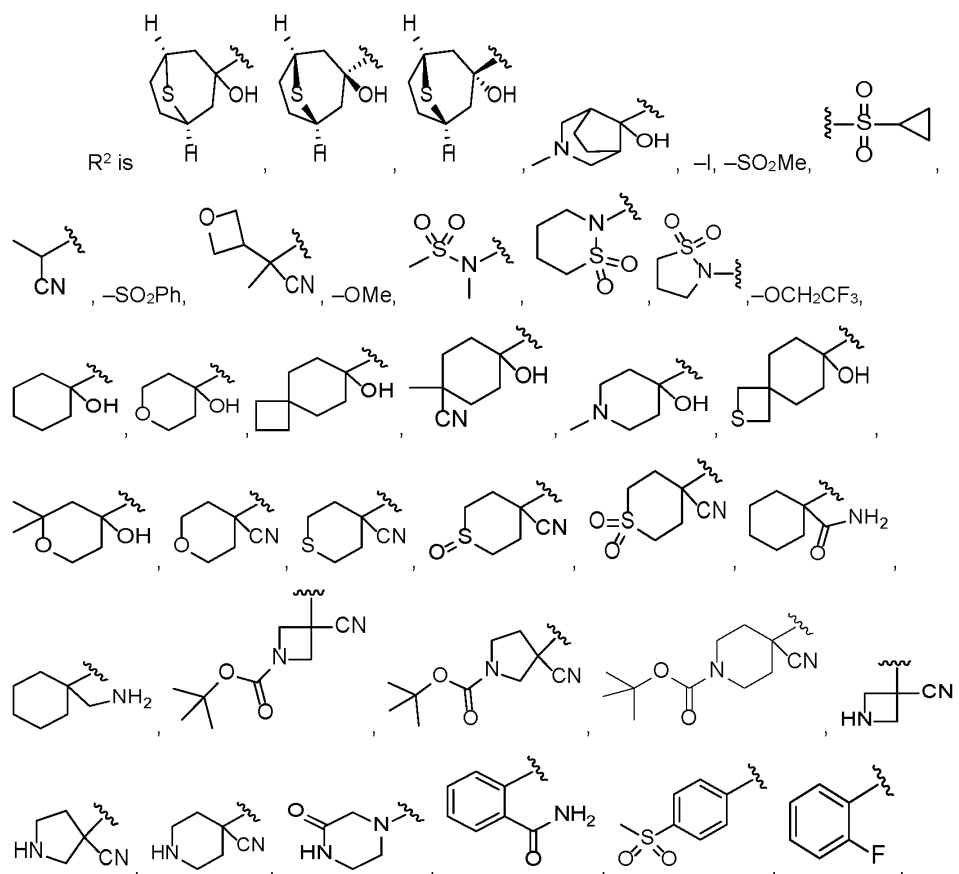
1. A compound of formula (I):

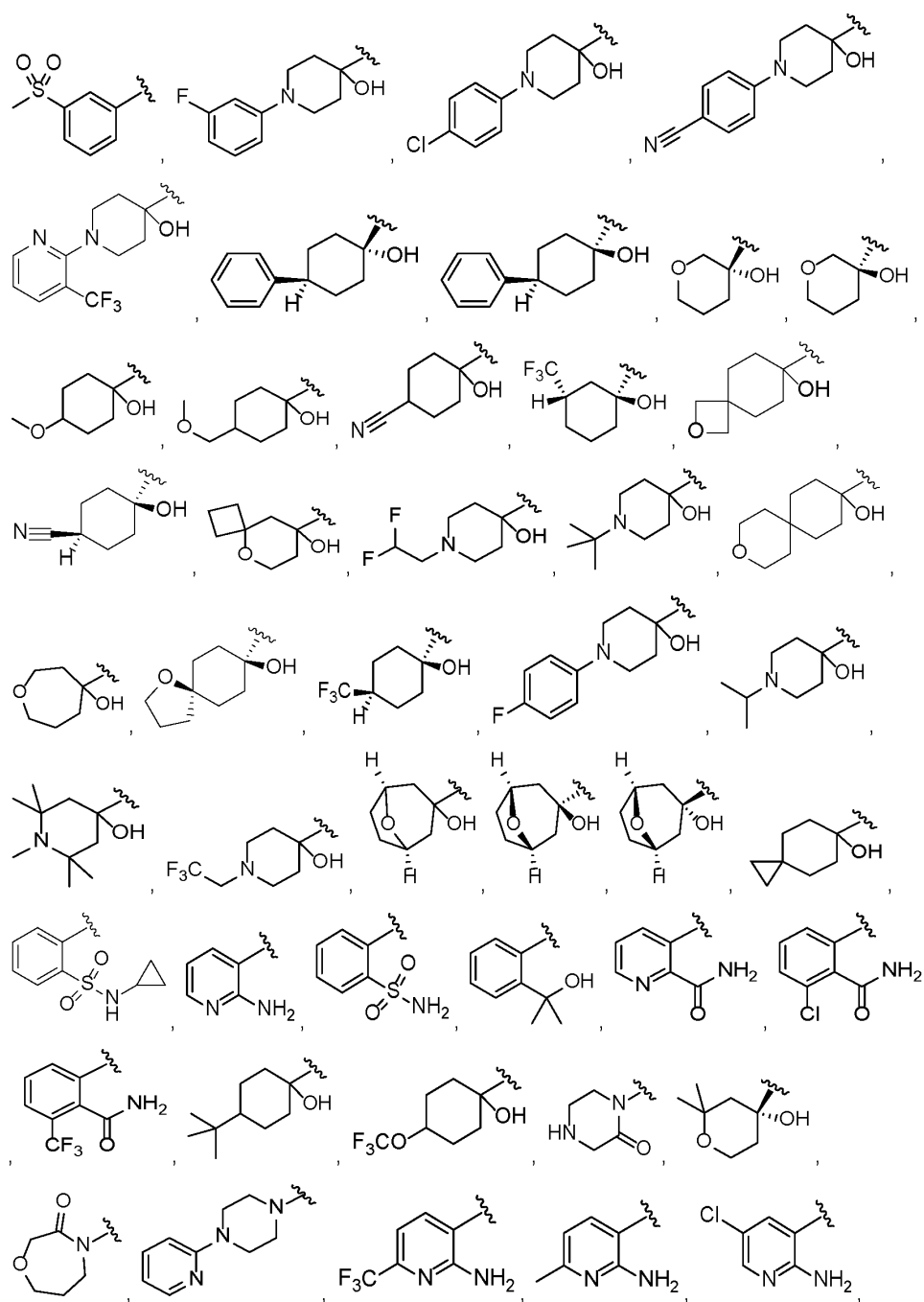


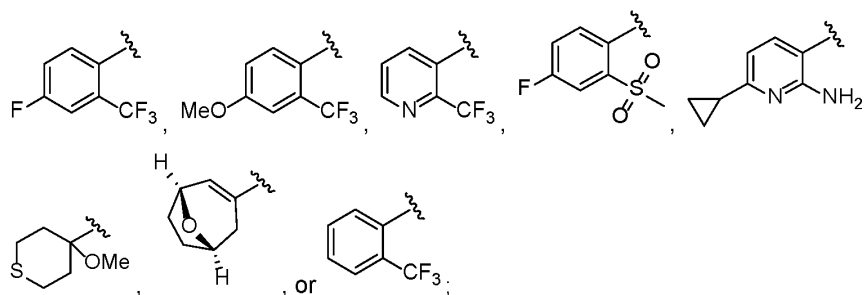
or a pharmaceutically acceptable salt thereof,
wherein

----- is a double bond, and each Y is independently N or CR⁴; or ----- is a single bond, and each Y is independently NR^Y, carbonyl, or C(R^Y)₂; wherein each R^Y is independently H or optionally substituted C₁₋₆ alkyl;

R¹ is optionally substituted C₁₋₆ alkyl or H;





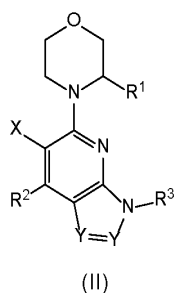


R³ is optionally substituted C₁₋₉ heteroaryl or optionally substituted C₁₋₉ heteroaryl C₁₋₆ alkyl;

each R⁴ is independently hydrogen, halogen, optionally substituted C₁₋₆ alkyl, optionally substituted C₂₋₆ alkenyl, or optionally substituted C₂₋₆ alkynyl; and

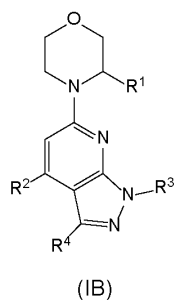
X is hydrogen or halogen.

2. The compound of claim 1, wherein the compound is a compound of formula (II):



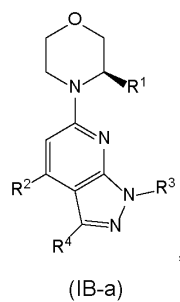
or a pharmaceutically acceptable salt thereof.

3. The compound of claim 1, wherein the compound is a compound of formula (IB):



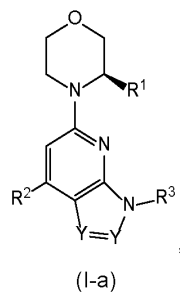
or a pharmaceutically acceptable salt thereof.

4. The compound of claim 1, wherein the compound is a compound of formula (IB-a):



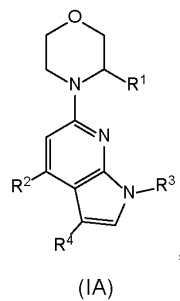
or a pharmaceutically acceptable salt thereof.

5. The compound of claim 1, wherein the compound is a compound of formula (I-a):



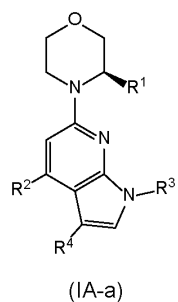
or a pharmaceutically acceptable salt thereof.

6. The compound of claim 1, wherein the compound is a compound of formula (IA):



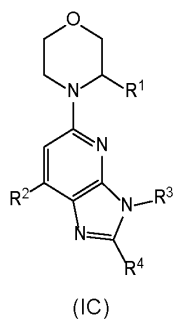
or a pharmaceutically acceptable salt thereof.

7. The compound of claim 1, wherein the compound is a compound of formula (IA-a):



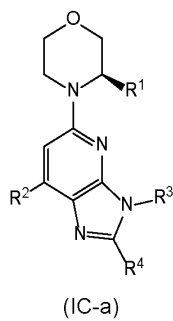
or a pharmaceutically acceptable salt thereof.

8. The compound of claim 1, wherein the compound is a compound of formula (IC):



or a pharmaceutically acceptable salt thereof.

9. The compound of claim 1, wherein the compound is a compound of formula (IC-a):

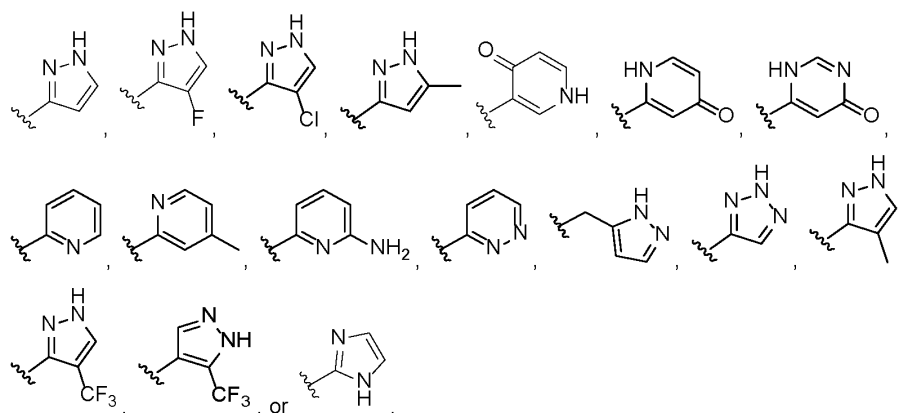


or a pharmaceutically acceptable salt thereof.

10. The compound of claim 1, wherein R¹ is methyl.

11. The compound of claim 1, wherein R³ is optionally substituted, monocyclic C₁₋₉ heteroaryl comprising at least one nitrogen atom.

12. The compound of claim 1, wherein R³ is:



13. The compound of claim 1, wherein R⁴ is hydrogen.

14. The compound of claim 1, wherein X is hydrogen.

15. A compound selected from the group consisting of compounds 42-152 and pharmaceutically acceptable salts thereof.

16. The compound of claim 15, wherein the compound is compound 42 or a pharmaceutically acceptable salt thereof.

17. The compound of claim 15, wherein the compound is compound 52 or a pharmaceutically acceptable salt thereof.

18. The compound of claim 15, wherein the compound is compound 100 or a pharmaceutically acceptable salt thereof.

19. The compound of claim 15, wherein the compound is compound 120 or a pharmaceutically acceptable salt thereof.

20. The compound of claim 15, wherein the compound is compound 121 or a pharmaceutically acceptable salt thereof.

21. The compound of claim 15, wherein the compound is compound 122 or a pharmaceutically acceptable salt thereof.

22. The compound of claim 15, wherein the compound is compound 123 or a pharmaceutically acceptable salt thereof.
23. The compound of claim 15, wherein the compound is compound 125 or a pharmaceutically acceptable salt thereof.
24. A pharmaceutical composition comprising the compound of any one of claims 1 to 23 and a pharmaceutically acceptable excipient.
25. The pharmaceutical composition of claim 24, wherein the composition is isotopically enriched in deuterium.
26. A method of inhibiting ATR kinase in a cell expressing ATR kinase, the method comprising contacting the cell with the compound of any one of claims 1 to 23.
27. The method of claim 26, wherein the cell is in a subject.
28. A method of treating a subject in need thereof comprising administering to the subject the compound of any one of claims 1 to 23.
29. The method of claim 28, wherein the subject is suffering from, and is in need of a treatment for, a disease or condition having the symptom of cell hyperproliferation.
30. The method of claim 28, wherein the disease or condition is a cancer.
31. The method of claim 30, wherein the cancer is a carcinoma, sarcoma, adenocarcinoma, leukemia, or melanoma.
32. The method of claim 30, wherein the cancer is a carcinoma selected from the group consisting of medullary thyroid carcinoma, familial medullary thyroid carcinoma, acinar carcinoma, acinous carcinoma, adenocystic carcinoma, adenoid cystic carcinoma, carcinoma adenomatosum, carcinoma of adrenal cortex, alveolar carcinoma, alveolar cell carcinoma, basal cell carcinoma, carcinoma basocellulare, basaloid carcinoma, basosquamous cell carcinoma, bronchioalveolar carcinoma, bronchiolar carcinoma, bronchogenic carcinoma, cerebriform carcinoma, cholangiocellular carcinoma, chorionic carcinoma, colloid carcinoma, comedo carcinoma, corpus carcinoma, cribriform carcinoma, carcinoma en cuirasse, carcinoma cutaneum, cylindrical carcinoma, cylindrical cell carcinoma, duct carcinoma, carcinoma durum, embryonal carcinoma, encephaloid carcinoma, epierrmoid carcinoma, carcinoma epitheliale adenoides, exophytic carcinoma, carcinoma ex ulcere, carcinoma fibrosum, gelatiniformi carcinoma, gelatinous

carcinoma, giant cell carcinoma, carcinoma gigantocellulare, glandular carcinoma, granulosa cell carcinoma, hair-matrix carcinoma, hematoid carcinoma, hepatocellular carcinoma, Hurthle cell carcinoma, hyaline carcinoma, hypernephroid carcinoma, infantile embryonal carcinoma, carcinoma in situ, intraepidermal carcinoma, intraepithelial carcinoma, Krompecher's carcinoma, Kulchitzky-cell carcinoma, large-cell carcinoma, lenticular carcinoma, carcinoma lenticulare, lipomatous carcinoma, lymphoepithelial carcinoma, carcinoma medullare, medullary carcinoma, melanotic carcinoma, carcinoma molle, mucinous carcinoma, carcinoma muciparum, carcinoma mucocellulare, mucoepidermoid carcinoma, carcinoma mucosum, mucous carcinoma, carcinoma myxomatodes, nasopharyngeal carcinoma, oat cell carcinoma, carcinoma ossificans, osteoid carcinoma, papillary carcinoma, periportal carcinoma, preinvasive carcinoma, prickle cell carcinoma, pultaceous carcinoma, renal cell carcinoma of kidney, reserve cell carcinoma, carcinoma sarcomatodes, schneiderian carcinoma, scirrhus carcinoma, carcinoma scroti, signet-ring cell carcinoma, carcinoma simplex, small-cell carcinoma, solanoid carcinoma, spheroidal cell carcinoma, spindle cell carcinoma, carcinoma spongiosum, squamous carcinoma, squamous cell carcinoma, string carcinoma, carcinoma telangiectaticum, carcinoma telangiectodes, transitional cell carcinoma, carcinoma tuberosum, tuberos carcinoma, verrucous carcinoma, and carcinoma villosum.

33. The method of claim 30, wherein the cancer is a sarcoma selected from the group consisting of chondrosarcoma, fibrosarcoma, lymphosarcoma, melanosarcoma, myxosarcoma, osteosarcoma, Abernethy's sarcoma, adipose sarcoma, liposarcoma, alveolar soft part sarcoma, ameloblastic sarcoma, botryoid sarcoma, chloroma sarcoma, chorio carcinoma, embryonal sarcoma, Wilms' tumor sarcoma, endometrial sarcoma, stromal sarcoma, Ewing's sarcoma, fascial sarcoma, fibroblastic sarcoma, giant cell sarcoma, granulocytic sarcoma, Hodgkin's sarcoma, idiopathic multiple pigmented hemorrhagic sarcoma, immunoblastic sarcoma of B cells, immunoblastic sarcoma of T-cells, Jensen's sarcoma, Kaposi's sarcoma, Kupffer cell sarcoma, angiosarcoma, leukosarcoma, malignant mesenchymoma sarcoma, parosteal sarcoma, reticulocytic sarcoma, Rous sarcoma, serocystic sarcoma, synovial sarcoma, and telangiectaltic sarcoma.

34. The method of claim 30, wherein the cancer is a leukemia selected from the group consisting of nonlymphocytic leukemia, chronic lymphocytic leukemia, acute granulocytic leukemia, chronic granulocytic leukemia, acute promyelocytic leukemia, adult T-cell leukemia, aleukemic leukemia, a leukocythemio leukemia, basophylic leukemia, blast cell leukemia, bovine leukemia, chronic myelocytic leukemia, leukemia cutis, embryonal leukemia, eosinophilic leukemia, Gross' leukemia, hairy-cell leukemia, hemoblastic leukemia, hemocytoblastic leukemia, histiocytic leukemia, stem cell leukemia, acute monocytic leukemia, leukopenic leukemia, lymphatic leukemia, lymphoblastic leukemia, lymphocytic leukemia, lymphogenous leukemia, lymphoid leukemia, lymphosarcoma cell leukemia, mast cell leukemia, megakaryocytic leukemia,

micromyeloblastic leukemia, monocytic leukemia, myeloblastic leukemia, myelocytic leukemia, myeloid granulocytic leukemia, myelomonocytic leukemia, Naegeli leukemia, plasma cell leukemia, multiple myeloma, plasmacytic leukemia, promyelocytic leukemia, Rieder cell leukemia, Schilling's leukemia, stem cell leukemia, subleukemic leukemia, and undifferentiated cell leukemia.

35. The method of claim 30, wherein the cancer is a melanoma selected from the group consisting of acral-lentiginous melanoma, amelanotic melanoma, benign juvenile melanoma, Cloudman's melanoma, S91 melanoma, Harding-Passey melanoma, juvenile melanoma, lentigo maligna melanoma, malignant melanoma, nodular melanoma, subungual melanoma, and superficial spreading melanoma.

36. The method of claim 30, wherein the cancer is prostate cancer, thyroid cancer, endocrine system cancer, brain cancer, breast cancer, cervix cancer, colon cancer, head & neck cancer, liver cancer, kidney cancer, lung cancer, non-small cell lung cancer, melanoma, mesothelioma, ovarian cancer, sarcoma, stomach cancer, uterus cancer, medulloblastoma, ampullary cancer, colorectal cancer, or pancreatic cancer.

37. The method of claim 30, wherein the cancer is Hodgkin's Disease, Non-Hodgkin's Lymphoma, multiple myeloma, neuroblastoma, glioma, glioblastoma multiforme, ovarian cancer, rhabdomyosarcoma, primary thrombocytosis, primary macroglobulinemia, primary brain tumors, cancer, malignant pancreatic insulinoma, malignant carcinoid, urinary bladder cancer, premalignant skin lesions, testicular cancer, lymphoma, thyroid cancer, neuroblastoma, esophageal cancer, genitourinary tract cancer, malignant hypercalcemia, endometrial cancer, adrenal cortical cancer, neoplasms of the endocrine or exocrine pancreas, medullary thyroid cancer, medullary thyroid carcinoma, melanoma, colorectal cancer, papillary thyroid cancer, hepatocellular carcinoma, or prostate cancer.

38. The method of claim 29, wherein the subject is suffering from, and is in need of a treatment for, a pre-malignant condition.