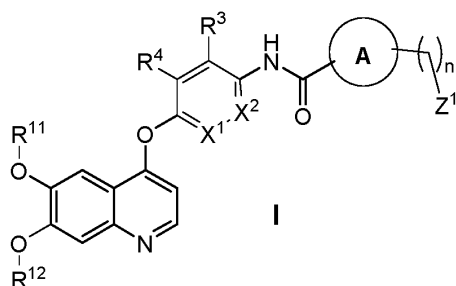


Claims

1. A compound having the general formula I:



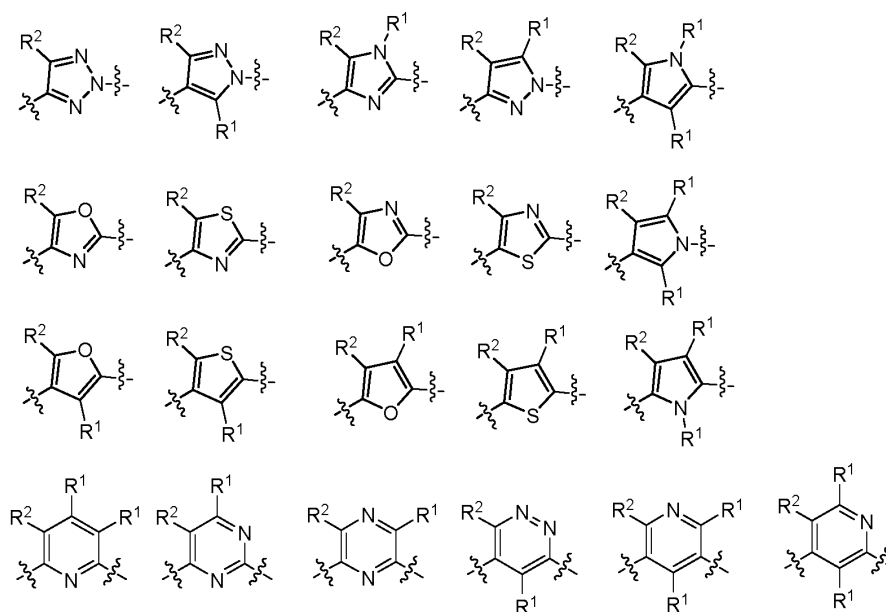
wherein

X¹ is, independently at each occurrence, selected from CR³ and N;

X² is, independently at each occurrence, selected from CR⁴ and N;

n is, independently at each occurrence, selected from 0, 1 and 2;

A is, at each occurrence, independently selected from any structure as depicted in the following group W;



Group W

R¹ is, at each occurrence, independently selected from the group consisting of hydrogen; C1-C6 alkyl; C1-C6 alkyl substituted with one or two of OR⁵ and NR⁵R⁶; C3-C10 cycloalkyl; C1-C4 haloalkyl; -(C=O)R⁵; any of which is optionally substituted;

R² is, at each occurrence, independently selected from the group consisting of C1-C6 alkyl; C3-C10 cycloalkyl; C1-C4 haloalkyl; -NR⁷R⁸; -OR⁸; any of which is optionally substituted;

R³ and R⁴ are, at each occurrence, independently selected from the group consisting of hydrogen; halogen, e.g Cl or F; C1-C3 alkyl; OR⁵; C1-C4 haloalkyl; any of which is optionally substituted;

R⁵ and R⁶ are, at each occurrence, independently selected from the group consisting of hydrogen; C1-C6 alkyl; C3-C10 cycloalkyl; C1-C4 haloalkyl; any of which is optionally substituted;

R⁷ is, at each occurrence, independently selected from the group consisting of hydrogen; C1-C6 alkyl; C1-C6 alkyl substituted with one or two of OR⁵ and NR⁵R⁶; C3-C10 cycloalkyl; C1-C4 haloalkyl; any of which is optionally substituted;

R⁸ is, at each occurrence, independently selected from the group consisting of hydrogen; -CH(CH₃)₂; -C(CH₃)₃; C3-C10 cycloalkyl; C3-C10 heterocycloalkyl; C1-C4 haloalkyl; C1-C6 alkyl substituted with one or two of OR⁵ and NR⁵R⁶; and C1-C6 alkyl substituted with one or two of C3-C10 cycloalkyl, C3-C10 heterocycloalkyl and C1-C4 haloalkyl; any of which is optionally substituted;

Z¹ is, at each occurrence, independently selected from the group consisting of hydrogen; C1-C6 alkyl; C1-C6 alkyl substituted with one or two of (=O), CN, OR⁵ and NR⁵R⁶; C3-C10 cycloalkyl; C3-C10 cycloalkyl substituted with one or several of halogen, OR⁷ and NR⁹R¹⁰; C3-C10 heterocycloalkyl; C3-C10

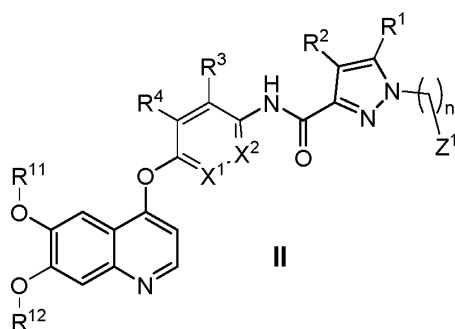
heterocycloalkyl substituted with one or several of halogen, C1-C6 alkyl, C3-C10 cycloalkyl and C1-C4 haloalkyl; C1-C4 haloalkyl;

R⁹ and R¹⁰ are, at each occurrence, independently selected from the group consisting of hydrogen; C1-C6 alkyl; C3-C10 cycloalkyl; C1-C4 haloalkyl; any of which is optionally substituted;

R¹¹ and R¹² are, at each occurrence, independently selected from the group consisting of C1-C6 alkyl; C3-C10 cycloalkyl; C3-C10 heterocycloalkyl; C1-C4 haloalkyl; any of which is optionally substituted;

and pharmaceutically acceptable salts thereof.

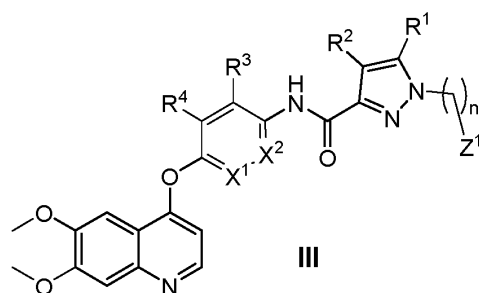
2. The compound according to claim 1, having the general formula II:



wherein

R¹, R², R³, R⁴, R¹¹, R¹², Z¹, X¹, X² and n are as defined in claim 1; and pharmaceutically acceptable salts thereof.

3. The compound according to any of claims 1 and 2, having the general formula III:



wherein

R¹, R², R³, R⁴, Z¹, X¹, X² and n are as defined in claim 1; and pharmaceutically acceptable salts thereof,

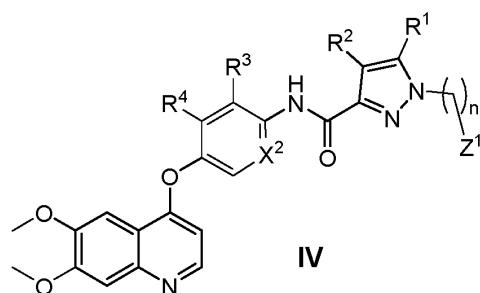
wherein, preferably,

R³ and R⁴ are, at each occurrence, independently selected from the group consisting of hydrogen; halogen, e.g Cl or F; C₁-C₃ alkyl, which is optionally substituted;

R⁸ is, at each occurrence, independently selected from the group consisting of hydrogen; -CH(CH₃)₂; -C(CH₃)₃; C₃-C₁₀ cycloalkyl; C₁-C₄ haloalkyl; C₁-C₆ alkyl substituted with one or two of OR⁵ and NR⁵R⁶, or C₁-C₆ alkyl substituted with one or two of C₃-C₁₀ cycloalkyl and C₁-C₄ haloalkyl; any of which is optionally substituted; and

Z¹ is, at each occurrence, independently selected from the group consisting of hydrogen; C₁-C₆ alkyl; C₁-C₆ alkyl substituted with one or two of OR⁵ and NR⁵R⁶; C₃-C₁₀ cycloalkyl; C₃-C₁₀ cycloalkyl substituted with one or several of halogen, OR⁷ and NR⁹R¹⁰; C₃-C₁₀ heterocycloalkyl; C₃-C₁₀ heterocycloalkyl substituted with one or several of halogen, C₁-C₆ alkyl, C₃-C₁₀ cycloalkyl and C₁-C₄ haloalkyl; C₁-C₄ haloalkyl; and pharmaceutically acceptable salts thereof.

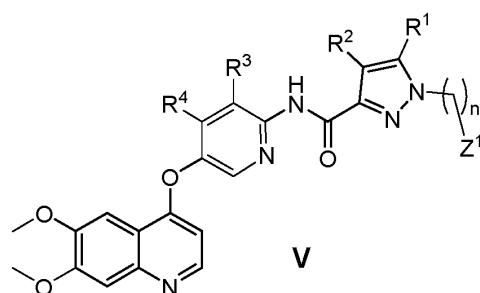
4. The compound according to any of claims 1 - 3, having the general formula IV:



wherein

R¹, R², R³, R⁴, Z¹, X² and n are as defined in any of claims 1 - 3; and pharmaceutically acceptable salts thereof.

5. The compound according to any of claims 1 - 4, having the general formula V:



wherein

R¹, R², R³, R⁴, Z¹ and n are as defined in any of claims 1 - 4; and pharmaceutically acceptable salts thereof;

wherein, preferably,

R³ and R⁴ are hydrogen;

and pharmaceutically acceptable salts thereof .

6. The compound according to any of claims 1-5, wherein n = 0 or 1, and Z¹ is selected from C₁-C₆ alkyl, in particular methyl, ethyl, propyl or isopropyl; C₃-C₁₀ cycloalkyl, in particular C₃ cycloalkyl; C₃-C₁₀ heterocycloalkyl; C₁-C₆ alkyl substituted with one or two of OR⁵ and NR⁵R⁶; and pharmaceutically acceptable salts thereof.

7. The compound according to any of claims 1-6, wherein R^2 is OR^8 , and R^8 is selected from $-CH(CH_3)_2$; $-C(CH_3)_3$; C1-C4 haloalkyl; C1-C6 alkyl substituted with one or two of C3-C10 cycloalkyl, C3-C10 heterocycloalkyl and C1-C4 haloalkyl; or C1-C6 alkyl substituted with C1-C4 haloalkyl, in particular one of trifluoromethyl, difluoromethyl, fluoromethyl, trifluoroethyl, difluoroethyl, fluoroethyl, trifluoropropyl, difluoropropyl, fluoropropyl, trifluoroisopropyl, difluoroisopropyl, and fluoroisopropyl and pharmaceutically acceptable salts thereof.

8. The compound according to any of claims 6 and 7, wherein
 $n = 0$ or 1 , and Z^1 is selected from C1-C6 alkyl, in particular methyl, ethyl, propyl or isopropyl; C3-C10 cycloalkyl, in particular C3 cycloalkyl; C3-C10 heterocycloalkyl; C1-C6 alkyl substituted with one or two of OR^5 and NR^5R^6 ; wherein R^5 and R^6 are, at each occurrence, independently selected from the group consisting of hydrogen; C1-C6 alkyl; C3-C10 cycloalkyl; C1-C4 haloalkyl; any of which is optionally substituted;
and

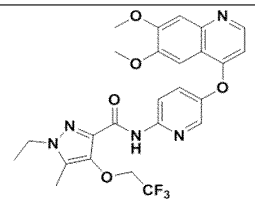
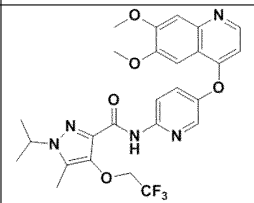
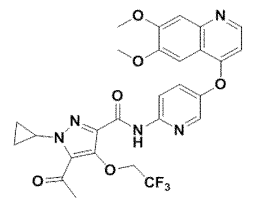
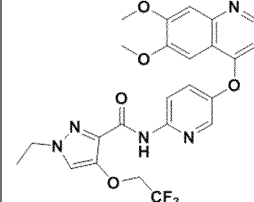
R^2 is OR^8 , and R^8 is selected from $-CH(CH_3)_2$; $-C(CH_3)_3$; C1-C4 haloalkyl; C1-C6 alkyl substituted with one or two of C3-C10 cycloalkyl, C3-C10 heterocycloalkyl and C1-C4 haloalkyl; or C1-C6 alkyl substituted with C1-C4 haloalkyl, in particular one of trifluoromethyl, difluoromethyl, fluoromethyl, trifluoroethyl, difluoroethyl, fluoroethyl, trifluoropropyl, difluoropropyl, fluoropropyl, trifluoroisopropyl, difluoroisopropyl, and fluoroisopropyl

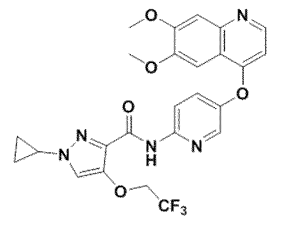
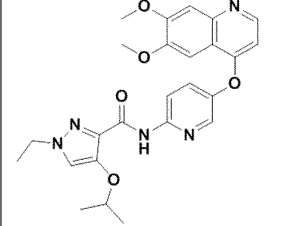
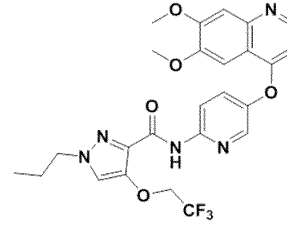
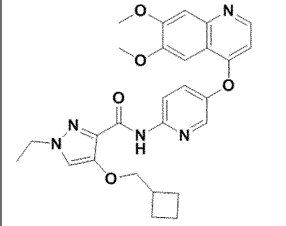
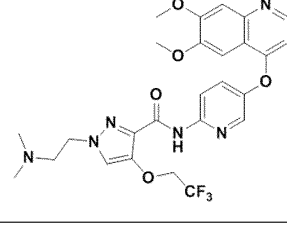
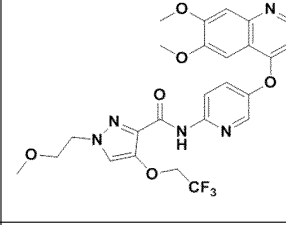
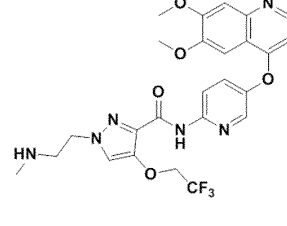
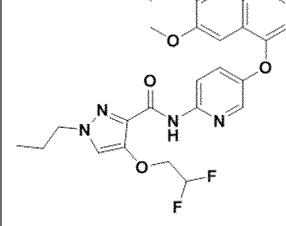
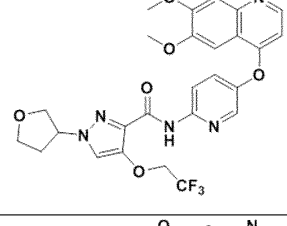
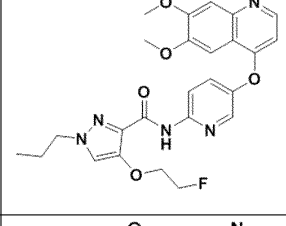
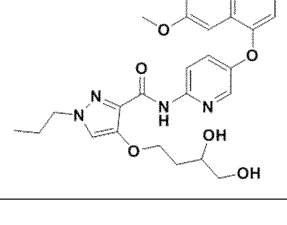
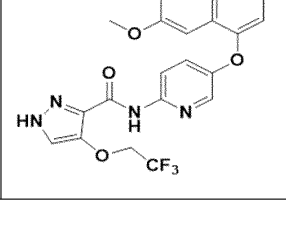
and pharmaceutically acceptable salts thereof.

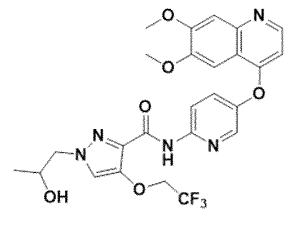
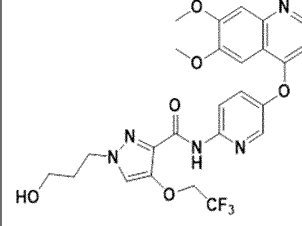
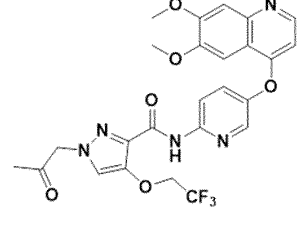
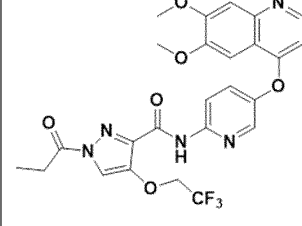
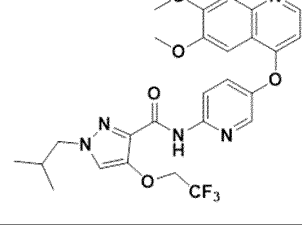
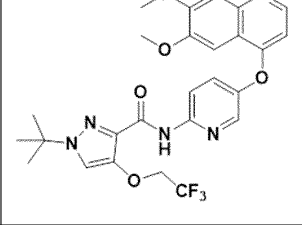
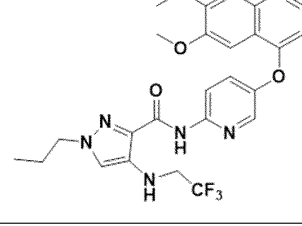
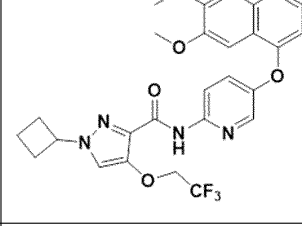
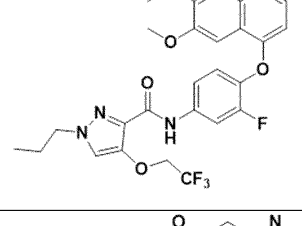
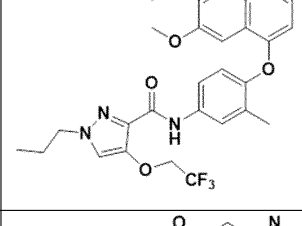
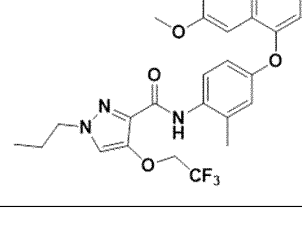
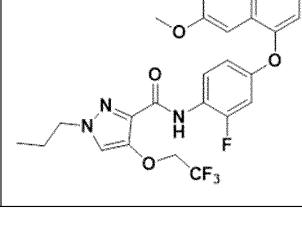
9. The compound according to any of the foregoing claims, wherein
 R^2 is OR^8 , and R^8 is selected from C1-C4 haloalkyl, in particular one of trifluoromethyl, difluoromethyl, fluoromethyl, trifluoroethyl, difluoroethyl, fluoroethyl, trifluoropropyl, difluoropropyl, fluoropropyl, trifluoroisopropyl, difluoroisopropyl, and fluoroisopropyl; or C1-C6 alkyl substituted with C1-C4 haloalkyl, in particular one of trifluoromethyl, difluoromethyl, fluoromethyl,

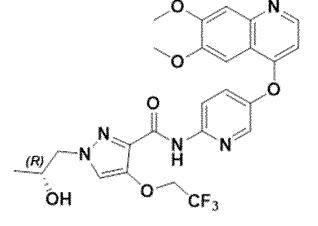
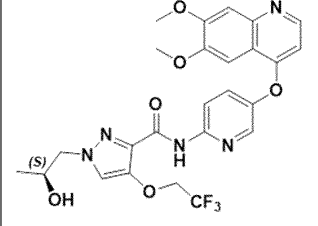
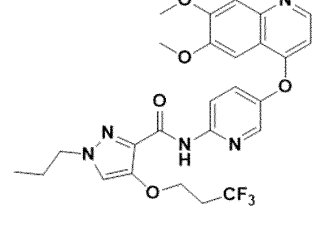
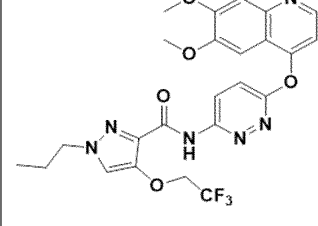
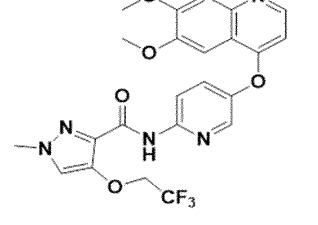
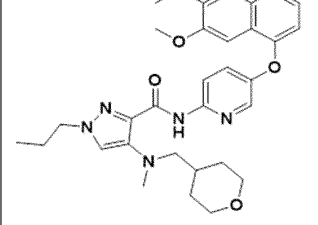
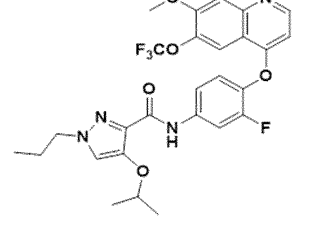
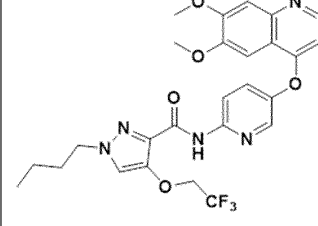
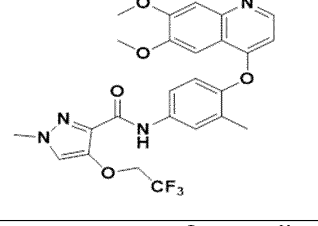
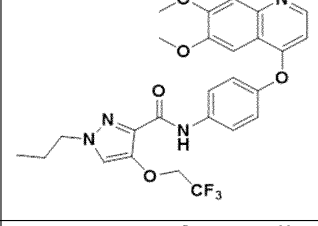
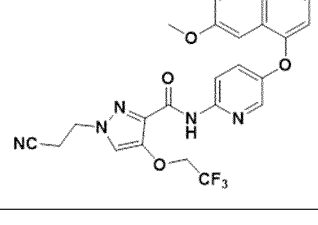
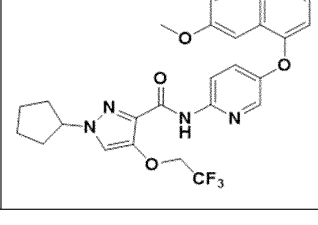
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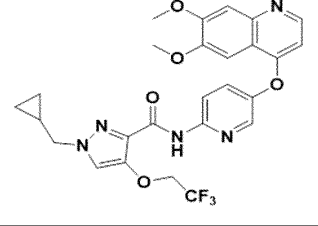
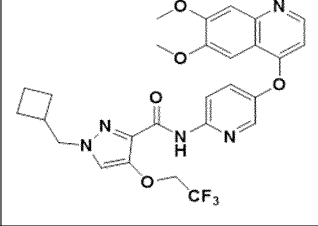
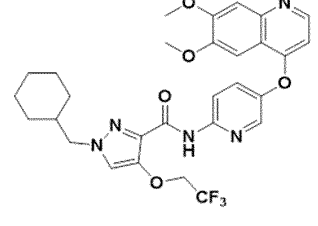
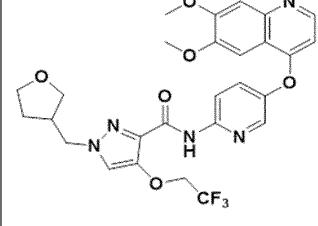
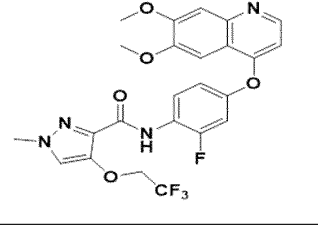
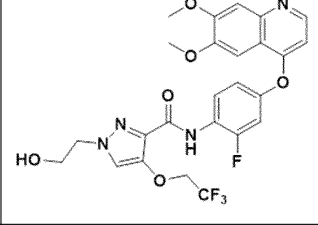
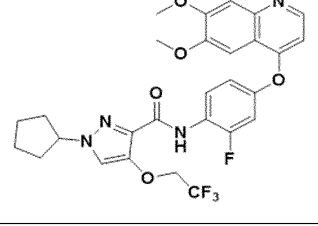
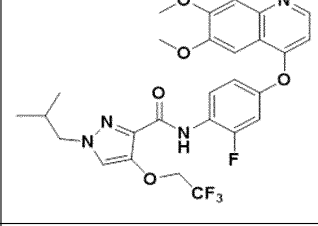
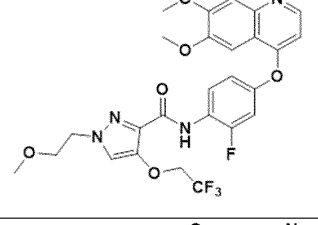
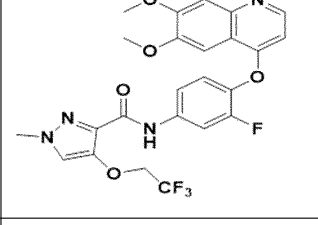
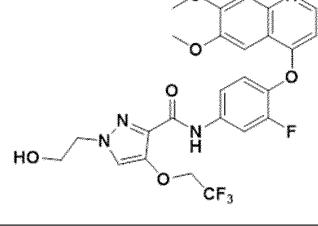
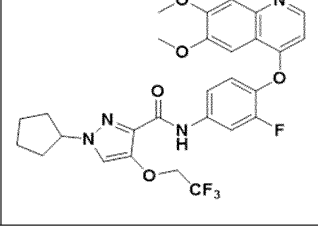
10. The compound according to any of the foregoing claims, wherein
 $n = 0$ or 1 ; and Z^1 is selected from methyl; ethyl; propyl; isopropyl; C₃ cycloalkyl; C₄ cycloalkyl; and C₅ cycloalkyl.
11. The compound according to any of claims 9 and 10, wherein
 $n = 0$ or 1 ; Z^1 is selected from methyl; ethyl; propyl; isopropyl; C₃ cycloalkyl; C₄ cycloalkyl; and C₅ cycloalkyl; and
 R^2 is OR^8 ; and R^8 is selected from C₁-C₄ haloalkyl, in particular one of trifluoromethyl, difluoromethyl, fluoromethyl, trifluoroethyl, difluoroethyl, fluoroethyl, trifluoropropyl, difluoropropyl, fluoropropyl, trifluoroisopropyl, difluoroisopropyl, and fluoroisopropyl; or C₁-C₆ alkyl substituted with C₁-C₄ haloalkyl, in particular one of trifluoromethyl, difluoromethyl, fluoromethyl, trifluoroethyl, difluoroethyl, fluoroethyl, trifluoropropyl, difluoropropyl, fluoropropyl, trifluoroisopropyl, difluoroisopropyl, and fluoroisopropyl
12. The compound according to any of the foregoing claims having one of the structures as shown hereafter:

#cpd	Structure	#cpd	Structure
1		2	
3		4	

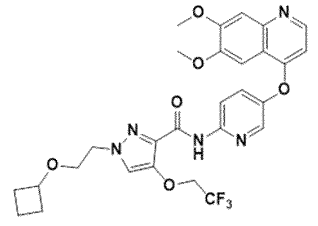
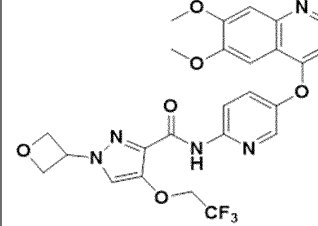
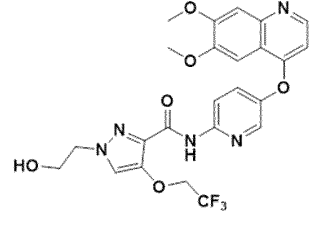
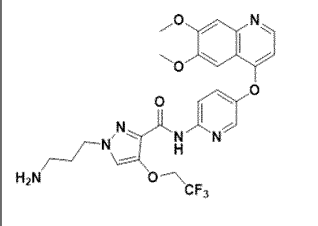
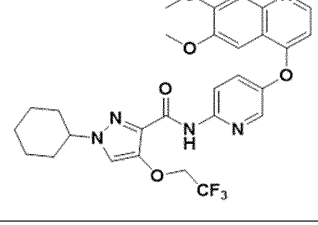
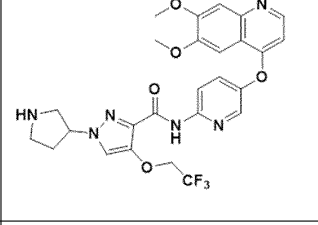
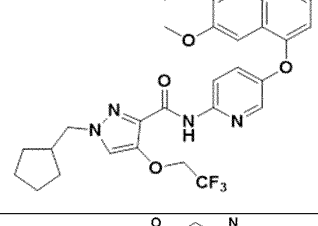
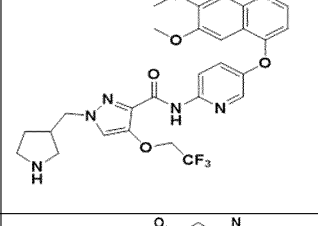
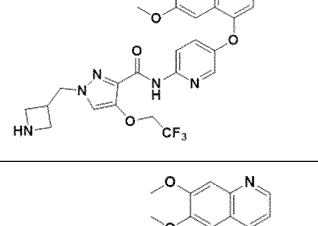
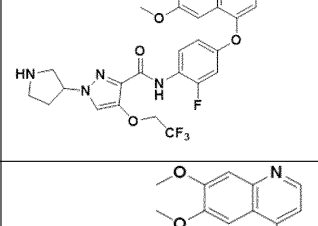
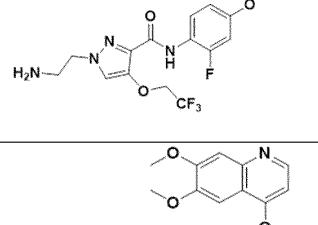
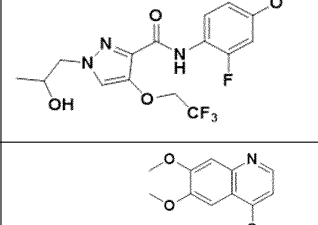
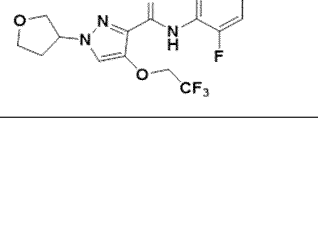
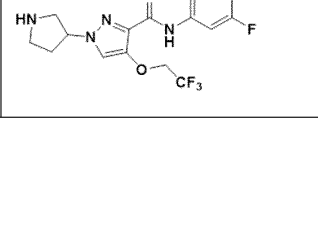
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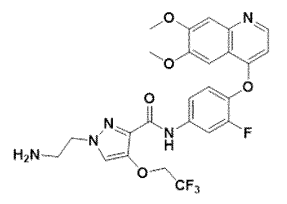
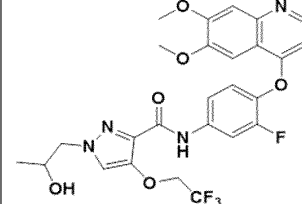
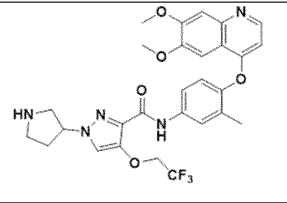
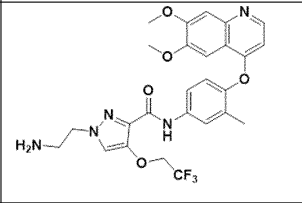
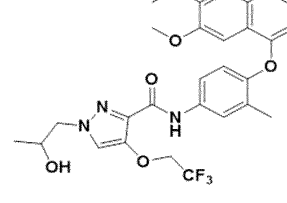
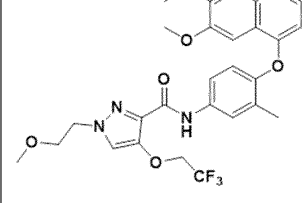
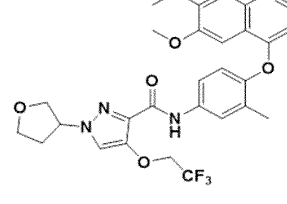
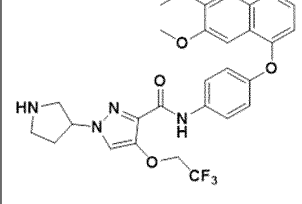
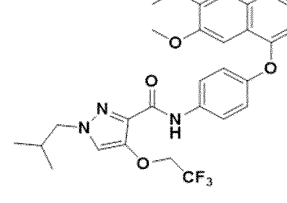
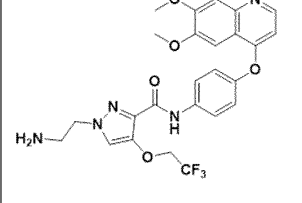
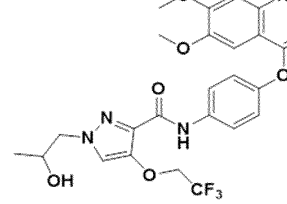
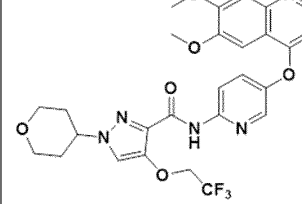
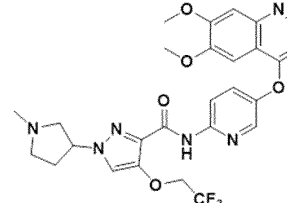
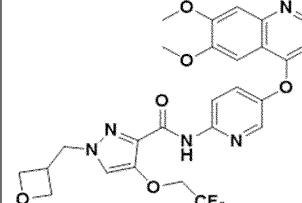
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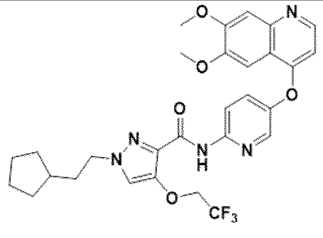
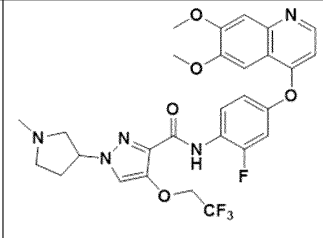
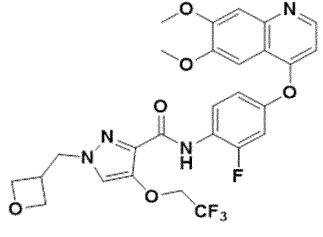
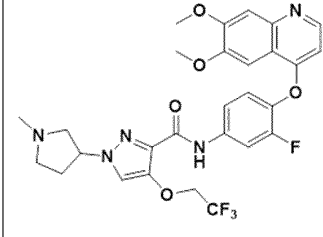
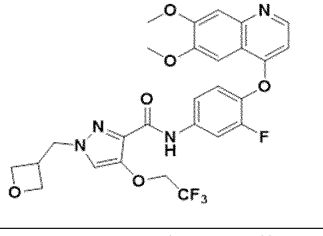
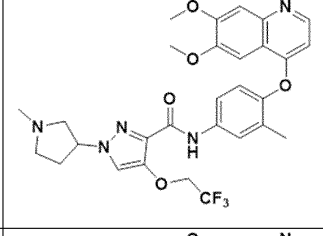
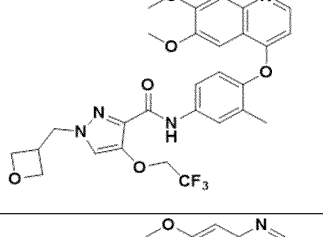
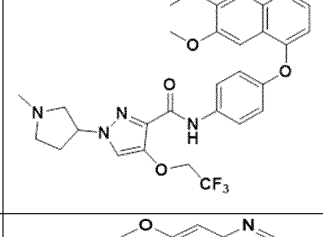
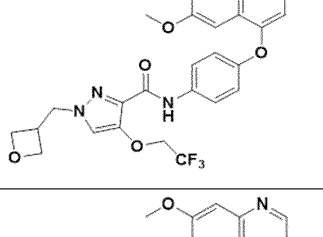
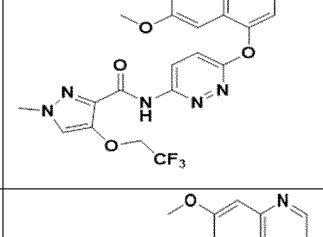
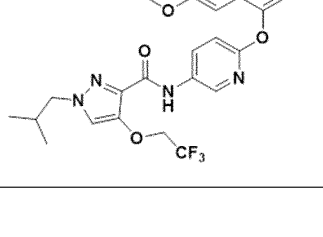
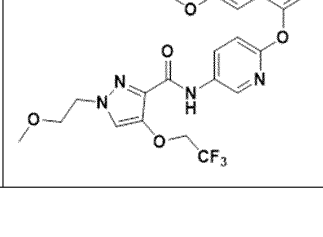
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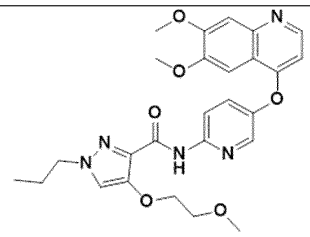
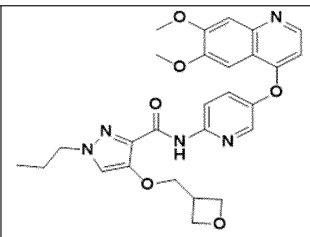
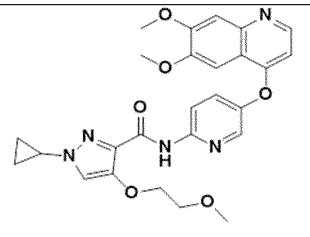
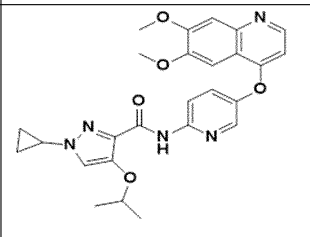
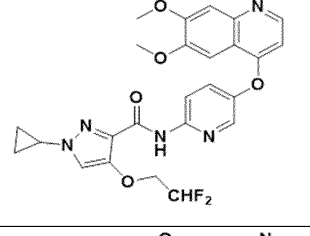
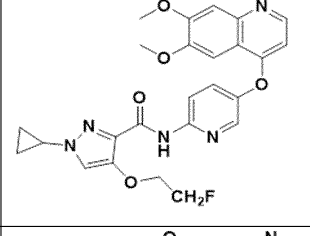
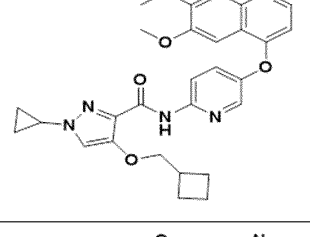
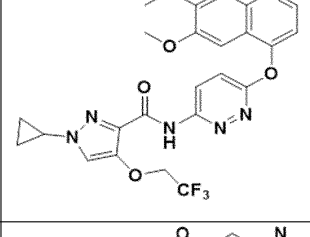
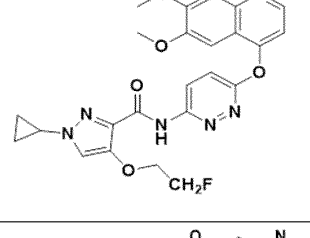
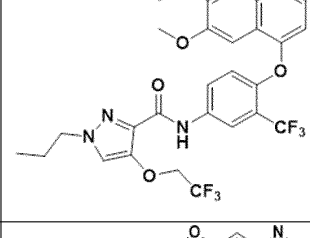
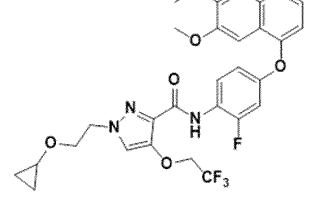
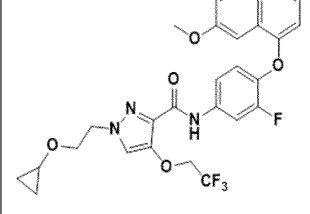
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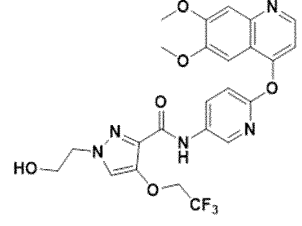
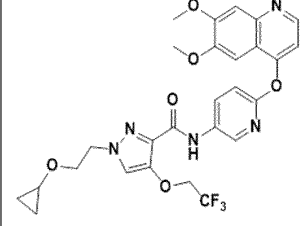
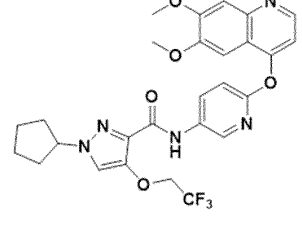
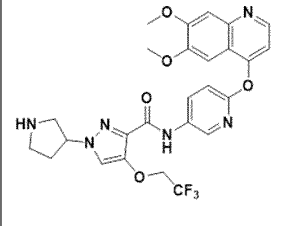
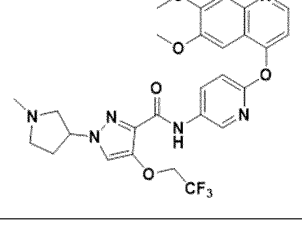
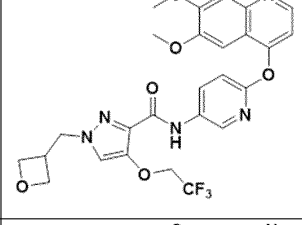
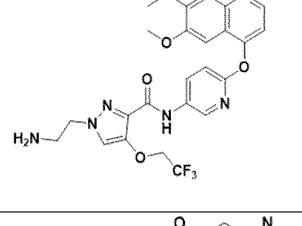
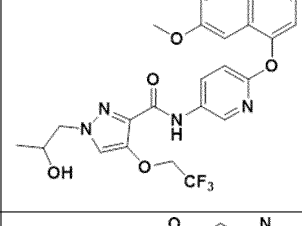
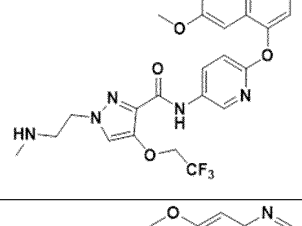
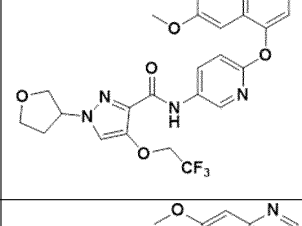
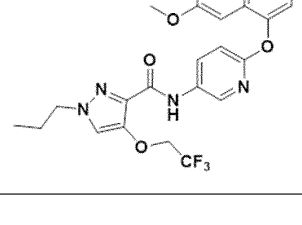
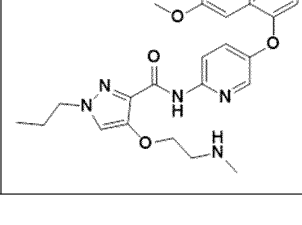
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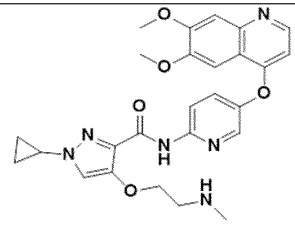
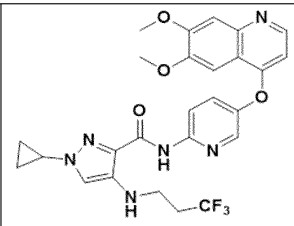
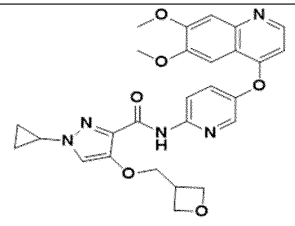
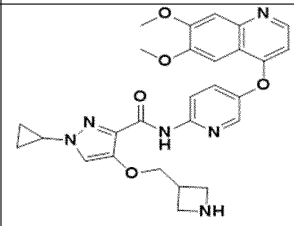
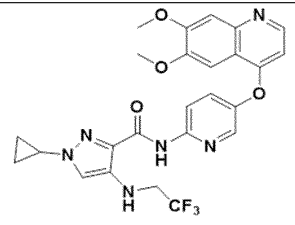
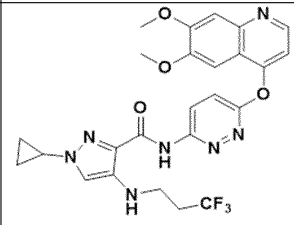
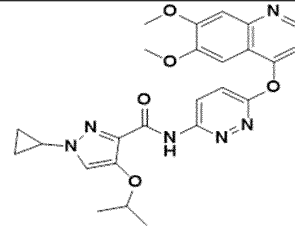
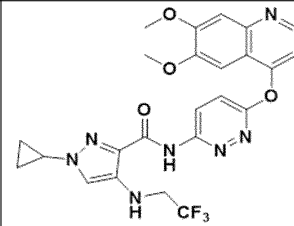
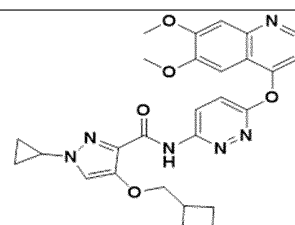
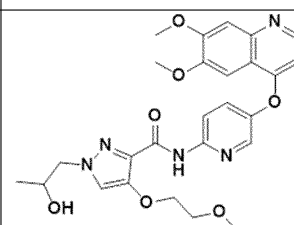
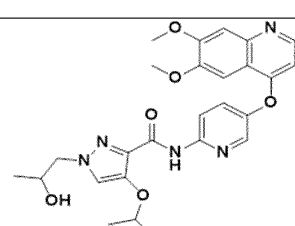
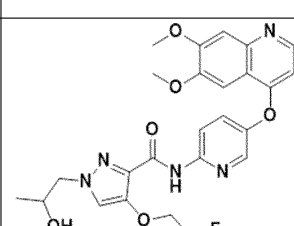
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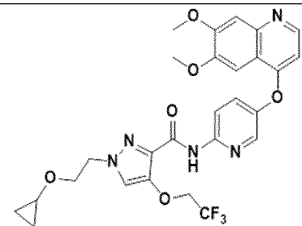
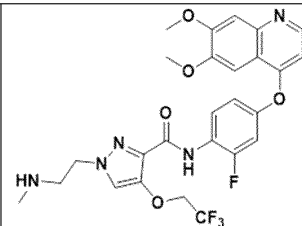
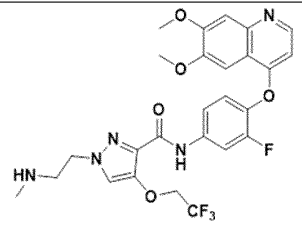
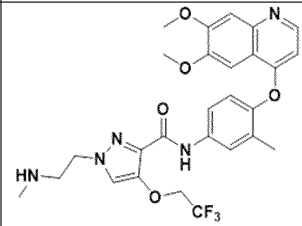
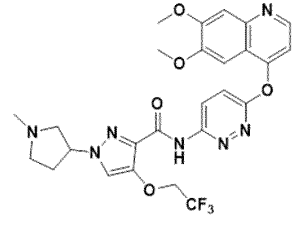
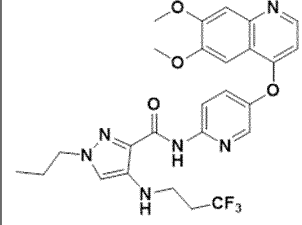
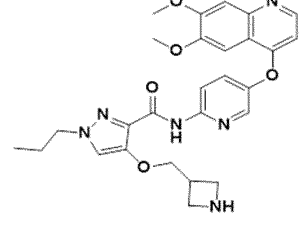
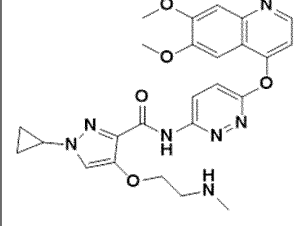
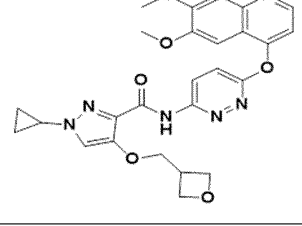
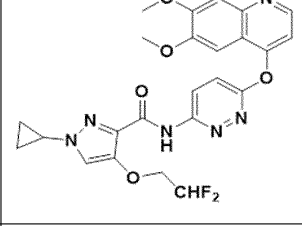
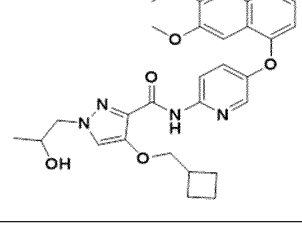
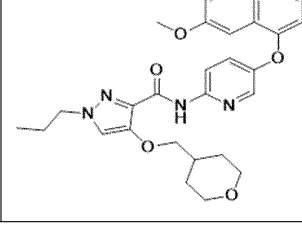
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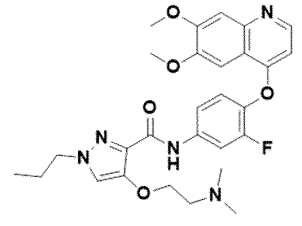
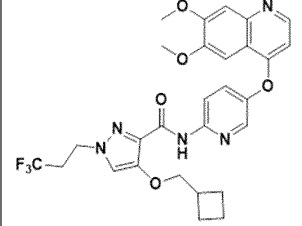
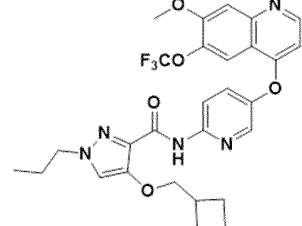
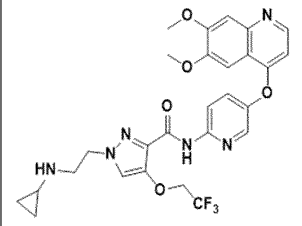
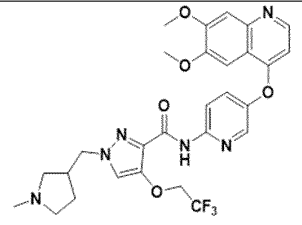
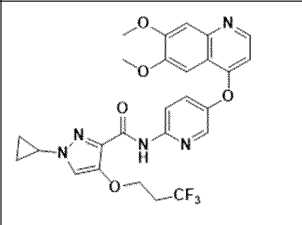
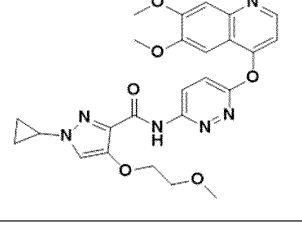
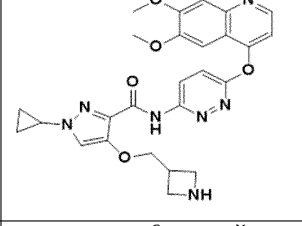
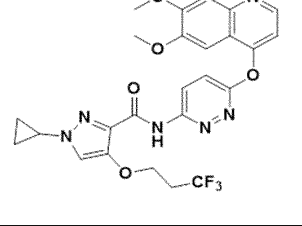
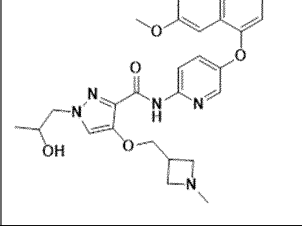
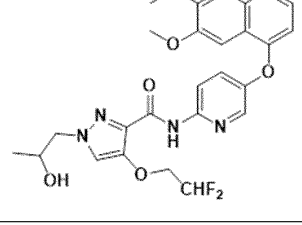
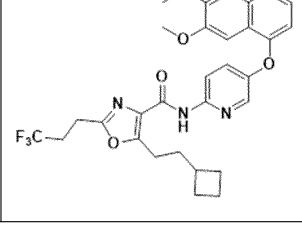
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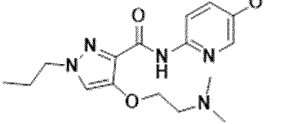
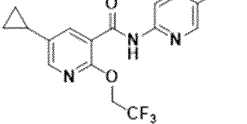
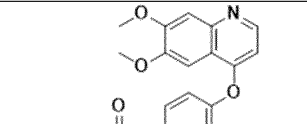
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13. A composition comprising at least one compound according to any of claims 1-12, together with at least one pharmaceutically acceptable carrier, excipient and/or diluent.
14. The composition according to claim 13, further comprising at least one other pharmaceutically active agent.
15. The compound according to any of claims 1-12 or the composition according to any of claims 13 - 14, for use as a pharmaceutically active agent, preferably for use in a method of treating a disorder.
16. The compound according to any of claims 1-12 or the composition according to any of claims 13 - 14, for use in the treatment of a disorder associated with, accompanied by, caused by or induced by a Axl/Mer and CSF1R receptor tyrosine kinase, in particular associated with, accompanied by, or caused by Axl/Mer and CSF1R (colony-stimulating factor-1-receptor), preferably associated with, accompanied by, or caused by a hyperfunction of said Axl/Mer and a hyperfunction of said CSF1R.
17. The compound or composition for use according to any of claims 15 - 16, wherein said disorder is selected from hyperproliferative disorders, inflammatory disorders and neurodegenerative disorders.

18. The compound or composition for use according to claim 17, wherein said hyperproliferative disorder is a cancer, preferably a cancer selected from adenocarcinoma, acoustic neuroma, acute lymphoblastic leukemia, acute myeloid leukemia, adrenocortical carcinoma, aids-related cancers, aids-related lymphoma, anal cancer, appendix cancer, astrocytomas, atypical teratoid/rhabdoid tumor, ampullary carcinoma, basal cell carcinoma, bile duct cancer, bladder cancer, bone cancer, osteosarcoma and malignant fibrous histiocyte, brain stem glioma, brain tumor, central nervous system atypical teratoid/rhabdoid tumor, craniopharyngioma, ependymoblastoma, ependymoma, medulloblastoma, medulloepithelioma, pineal parenchymal tumors of intermediate differentiation, supratentorial primitive neuroectodermal tumors and pineoblastoma, brain and spinal cord tumors, breast cancer, urachal tumors, burkitt lymphoma, carcinoid tumor, choroidal melanoma, gastrointestinal cancer, central nervous system lymphoma, cervical cancer, corpus cancer, chordoma, chronic lymphocytic leukemia, chronic myelogenous leukemia, chronic myeloproliferative disorders, colon cancer, colorectal cancer, cutaneous t-cell lymphoma, desmoid tumor, mycosis fungoides, endometrial cancer, esophageal cancer, esthesioneuroblastoma, Ewing sarcoma family of tumors, extracranial germ cell tumor, extragonadal germ cell tumor, extrahepatic bile duct cancer, ear tumors, intraocular melanoma, retinoblastoma, gallbladder cancer, gastric cancer, gastrointestinal carcinoid tumor, gastrointestinal stromal tumor, gastrointestinal stromal cell tumor, gynecologic tumors, ovarian germ cell tumor, gestational trophoblastic tumor, glioma, gallbladder carcinomas, hairy cell leukemia, head and neck cancer, heart cancer, hepatocellular cancer, histiocytosis, hypopharyngeal cancer, hematologic neoplasias, islet cell tumors (endocrine pancreas), renal cell cancer, kidney cancer, langerhans cell histiocytosis, laryngeal cancer, leukemia, lip and oral cavity cancer, liver cancer, lung cancer, non-small cell lung cancer, small intestinal tumors, small cell lung cancer, hodgkin lymphoma, non-hodgkin lymphoma, primary central nervous system lymphoma, macroglobulinemia, malignant fibrous histiocyte of bone and osteosarcoma, melanoma, merkel cell carcinoma, mesothelioma, metastatic squamous neck cancer with occult primary,

spinaliomas, multiple endocrine neoplasia syndromes, myelodysplastic syndromes, myelodysplastic/myeloproliferative neoplasms, myeloid leukemia, multiple myeloma, myeloproliferative disorders, nasal cavity and paranasal sinus cancer, nasopharyngeal cancer, neuroblastoma, oral cavity cancer, oropharyngeal cancer, osteosarcoma and malignant fibrous histiocytoma of bone, ovarian cancer, ovarian epithelial cancer, ovarian low malignant potential tumor, oligodendroglioma, plasmacytomas, pancreatic cancer, papillomatosis, parathyroid cancer, penile cancer, pharyngeal cancer, pituitary tumor, plasma cell neoplasm/multiple myeloma, pleuropulmonary blastoma, prostate cancer, rectal cancer, renal cell cancer, transitional cell cancer, respiratory tract cancer, rhabdomyosarcoma, salivary gland cancer, sarcoma, skin testis cancer, ewing sarcoma, kaposi sarcoma, uterine sarcoma, non-melanoma skin cancer, melanoma skin cancer, skin carcinoma, small intestine cancer, soft tissue sarcoma, squamous cell carcinoma, squamous neck cancer, stomach cancer, soft tissue tumors, testicular cancer, throat cancer, thymoma and thymic carcinoma, thyroid cancer, transitional cell cancer of the renal pelvis and ureter, trophoblastic tumor, testicle cancer, gestational cancer, urologic tumors, ureter and renal pelvis cancer, urethral cancer, urothelial carcinoma, uterine cancer, vaginal cancer, vulvar cancer, waldenström macroglobulinemia and wilms tumor, tumors that cause effusions in potential spaces of the body, pleural effusions, pericardial effusions, peritoneal effusion aka ascites, giant cell tumor (GCT), GCT of bone, pigmented villonodular synovitis (PVNS), tenosynovial giant cell tumor (TGCT), TGCT of tendon sheath (TGCT-TS).

19. The compound or composition for use according to claim 17, wherein said inflammatory disorder is selected from osteoarthritis, inflammatory bowel syndrome, transplant rejection, systemic lupus erythematosus, ulcerative colitis, crohn's disease, chronic obstructive pulmonary disease, emphysema, Kawasaki's Disease, hemophagocytic syndrome (macrophage activation syndrome), multicentric reticulohistiocytosis, atherosclerosis, primary progressive multiple sclerosis, tenpsy Type I diabetes, Type II diabetes, insulin resistance, hyperglycemia, obesity, lipolysis, hypereosinophilia,

osteoporosis, increased risk of fracture, Paget's disease, hypercalcemia, infection-mediated osteolysis (e.g. osteomyelitis), peri-prosthetic or wear-debris-mediated osteolysis, endometriosis, inflammatory pain, chronic pain, and bone pain.

20. The compound or composition for use according to claim 17, wherein said neurodegenerative disorder is selected from Binswanger type dementia, prosencephaly, microcephaly, cerebral palsy, congenital hydrocephalus, abdominal dropsy, progress supranuclear palsy, glaucoma, Wilson disease, Alzheimer's disease and other dementias, Parkinson's disease (PD) and PD-related disorders, multi infarct dementia, Frontotemporal dementia, pseudo-dementia, Prion disease, Motor neuron diseases, Huntington's disease, spinocerebellar ataxia, and spinal muscular atrophy.
21. The compound or composition for use according to any of claims 15 - 20, wherein said use is in combination with another pharmaceutically active drug or therapy, in particular radiation therapy, chemotherapy agents, targeted drugs and immune check point inhibitor drugs.
22. A method of treatment of a disease selected from hyperproliferative disorders, inflammatory disorders and/or neurodegenerative disorders, comprising administering a compound according to any of claims 1-12, or a composition according to any of claims 13-14 to a patient in need thereof.