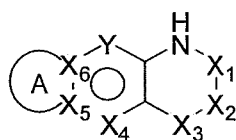


$R_{11}$  and  $R_{12}$  are independently hydrogen, halogen,  $-C_{1-10}$  alkyl,  $-C_{2-10}$  alkenyl,  $-C_{2-10}$  alkynyl,  $-C_{1-10}$  heteroalkyl,  $-C_{3-10}$  aryl,  $-C_{1-10}$  hetaryl,  $-C_{3-10}$  cycloalkyl,  $-C_{1-10}$  heterocyclyl,  $-OH$ ,  $-CF_3$ ,  $-OCF_3$ ,  $-OR^{31}$ ,  $-NR^{31}R^{32}$ ,  $-C(O)R^{31}$ ,  $-CO_2R^{31}$ ,  $-C(=O)NR^{31}$ ,  $-NO_2$ ,  $-CN$ ,  $-S(O)_{0-2}R^{31}$ ,  $-SO_2NR^{31}R^{32}$ ,  $-NR^{31}C(=O)R^{32}$ ,  $-NR^{31}C(=O)OR^{32}$ ,  $-NR^{31}C(=O)NR^{32}R^{33}$ ,  $-NR^{31}S(O)_{0-2}R^{32}$ ,  $-C(=S)OR^{31}$ ,  $-C(=O)SR^{31}$ ,  $-NR^{31}C(=NR^{32})NR^{32}R^{33}$ ,  $-NR^{31}C(=NR^{32})OR^{33}$ ,  $-NR^{31}C(=NR^{32})SR^{33}$ ,  $-OC(=O)OR^{33}$ ,  $-OC(=O)NR^{31}R^{32}$ ,  $-OC(=O)SR^{31}$ ,  $-SC(=O)SR^{31}$ ,  $-P(O)OR^{31}OR^{32}$ , or  $-SC(=O)NR^{31}NR^{32}$ ; and each of  $R^{31}$ ,  $R^{32}$ , and  $R^{33}$  is independently hydrogen, halogen,  $-C_{1-10}$  alkyl,  $-C_{2-10}$  alkenyl,  $-C_{2-10}$  alkynyl,  $-C_{1-10}$  heteroalkyl,  $-C_{3-10}$  aryl,  $-C_{1-10}$  hetaryl,  $-C_{3-10}$  cycloalkyl, or  $-C_{1-10}$  heterocyclyl, or  $R^{31}$  together with  $R^{32}$  form a heterocyclic ring.

**[0006b]** In one embodiment, there is provided use of the compound as described herein in the manufacture of a medicament for treatment of cancer, wherein the cancer is mediated by ERK1 and/or ERK2.

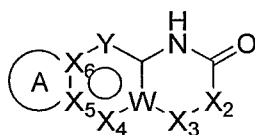
**[0006c]** In one embodiment, there is provided use of the compound as described herein in the manufacture of a medicament for treatment of cancer.

**[0007]** In some embodiments, the invention provides a compound of Formula I-A:



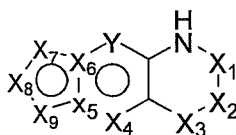
or a pharmaceutically acceptable salt or prodrug thereof.

**[0008]** In some embodiments, the invention provides a compound of Formula I-B:



or a pharmaceutically acceptable salt or prodrug thereof.

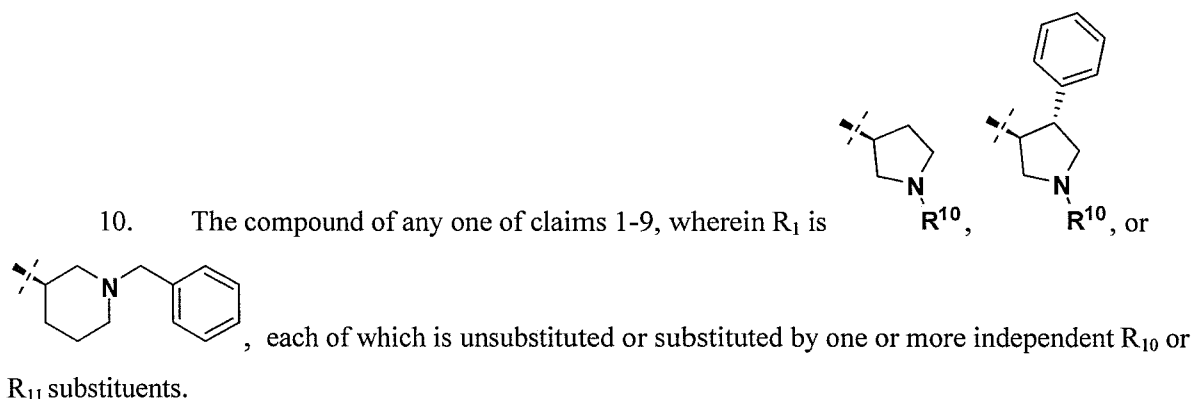
**[0009]** In some cases, the invention provides a compound of Formula II:



or a pharmaceutically acceptable salt or prodrug thereof.

In some embodiments,  $X_1$  is  $C=O$ . In some embodiments,  $X_2$  is  $NR_1$ . In some embodiments,  $X_5$  is N and  $X_6$  is C. In other embodiments,  $X_5$  is C and  $X_6$  is C. In some embodiments,  $X_9$  is  $CR_{21}$ .

3. The compound of claim 2, wherein  $R_{21}$  is  $-L-C_{1-10}$ hetaryl unsubstituted or substituted by one or more independent  $R_{12}$  substituents; and wherein  $L$  is a bond.
4. The compound of claim 3, wherein the  $C_{1-10}$ hetaryl of  $R_{21}$  comprises one or more nitrogen atoms.
5. The compound of claim 4, wherein the  $C_{1-10}$ hetaryl of  $R_{21}$  is selected from the group consisting of pyrazolyl, pyridinyl, pyrazinyl, pyrimidinyl, and pyridazinyl.
6. The compound of claim 5, wherein the  $C_{1-10}$ hetaryl of  $R_{21}$  is unsubstituted.
7. The compound of claim 5, wherein the  $C_{1-10}$ hetaryl or  $R_{21}$  is substituted with one, two, or three independent  $R_{12}$  substituents.
8. The compound of any one of claims 2-5 or 7, wherein each  $R_{12}$  substituent is independently selected from the group consisting of  $-C_{1-10}$  alkyl,  $-C_{2-10}$ alkenyl,  $-C_{2-10}$  alkynyl,  $-C_{1-10}$ heteroalkyl,  $-C_{3-10}$ aryl,  $-C_{1-10}$ hetaryl,  $-C_{3-10}$ cycloalkyl,  $-C_{1-10}$ heterocyclyl,  $-OH$ ,  $-CF_3$ ,  $-OCF_3$ , and  $-OR^{31}$ ; wherein each  $R^{31}$  is independently hydrogen or  $-C_{1-10}$  alkyl.
9. The compound of claim 8, wherein each  $R_{12}$  substituent is independently selected from the group consisting  $-Me$ ,  $-Et$ ,  $-i-Pr$ ,  $-n-Pr$ ,  $-OH$ ,  $-OMe$ ,  $-OEt$ , and  $-OPr$ .



11. Use of the compound of any one of claims 1-10 for the manufacture of a medicament for treatment of cancer, wherein the cancer is mediated by ERK1 and/or ERK2.
12. Use of the compound of any one of claims 1-10 for the manufacture of a medicament for treatment of cancer.
13. The use of claim 12, wherein the cancer is selected from the group consisting of breast cancer, pancreatic cancer, non-small cell lung cancer (NSCLC), thyroid cancer, seminomas, melanoma, bladder cancer, liver cancer, kidney cancer, myelodysplastic syndrome (MDS), acute myelogenous leukemia (AML), and colorectal cancer.