WHAT IS CLAIMED IS:

1. Use of an effective amount of poziotinib in the manufacture of a medicament for the treatment of cancer in a subject, wherein the medicament is to be administered to the subject, and wherein the subject has been determined to have one or more epidermal growth factor receptor (EGFR) tyrosine kinase inhibitor (TKI) resistant mutations.

2. The use of claim 1, wherein the one or more EGFR TKI resistant mutations comprise one or more point mutations, insertions, and/or deletions of 3-18 nucleotides between amino acids 688-728 of exon 18.

3. The use of claim 2, wherein the one or more EGFR exon 18 mutations are located at one or more residues selected from the group consisting of E709, L718, G719, S720, and G724.

4. The use of claim 2 or 3, wherein the one or more EGFR exon 18 mutations are located at one or more residues selected from the group consisting of E709, L718, G719, S720, G724, and T725.

5. The use of any one of claims 2-4, wherein the one or more EGFR exon 18 mutations comprise E709A, L718Q, L718V, G719A, G719S, S720P, and/or G724S.

6. The use of any one of claims 2-5, wherein the one or more EGFR exon 18 mutations comprise E709A, E709K, L718Q, L718V, G719A, G719S, S720P, G724S, and/or T725M.

7. The use of any one of claims 1-6, wherein the one or more EGFR TKI resistant mutations comprise one or more point mutations, insertions, and/or deletions of 3-18 nucleotides between amino acids 729-761 of exon 19.

8. The use of claim 7, wherein the one or more EGFR exon 19 mutations are located at one or more residues selected from the group consisting of I744, L747, L747, A755, K757, and/or D761.

9. The use of claim 7 or 8, wherein the one or more EGFR exon 19 mutations are located at one or more residues selected from the group consisting of I744, L747, L747, K754, A755, K757, and/or D761.

10. The use of any one of claims 7-9, wherein the one or more EGFR exon 19 mutations comprise I744V, I744T, L747S, L747FS, A755T, K757R, and/or D761N.

11. The use of any one of claims 7-10, wherein the one or more EGFR exon 19 mutations comprise I744V, I744T, L747S, L747P, L747FS, K754E, A755T, K757R, and/or D761N.

12. The use of any one of claims 1-11, wherein the one or more EGFR TKI resistant mutations comprise one or more point mutations, insertions, and/or deletions of 3-18 nucleotides between amino acids 763-823 of exon 20.

13. The use of claim 12, wherein the one or more EGFR exon 20 mutations are located at one or more residues selected from the group consisting of C775, S784, L792, G796, S811, and R776.

14. The use of any one of claims 12-13, wherein the one or more EGFR exon 20 mutations comprise S784F, R776C, S768I, V774M, S768I, H773insAH, V774A, V769L, V769M, A763insLQEA, R776H, L792H, G796D, S784F, C775Y and/or S811F.

15. The use of any one of claims 1-14, wherein the one or more EGFR TKI resistant mutations comprise one or more point mutations, insertions, and/or deletions of 3-18 nucleotides between amino acids 824-875 of exon 21.

16. The use of claim 15, wherein the one or more EGFR exon 21 mutations are located at one or more residues selected from the group consisting of L833, V834, G836, V843, T854, L861, L861, L862, L844 and L858.

17. The use of claim 15 or 16, wherein the one or more EGFR exon 21 mutations may comprise L833F, V834L, L858R, L861Q, V843I, L861R, L862V, L844V, L861Q, G836S, and/or T854I.

18. The use of any one of claims 15-17, wherein the one or more EGFR exon 21 mutations may comprise L833F, L833V, V834L, L858R, L861Q, V843I, L861R, L862V, L844V, L861Q, G836S, and/or T854I.

19. The use of any one of claims 1-18, wherein the subject has been determined to have 2, 3, or 4 EGFR TKI resistant mutations.

20. The use of any one of claim 1-19, wherein the subject has been previously administered a TKI.

21. The use of claim 20, wherein the subject is resistant to the previously administered TKI.

22. The use of any one of claims 1-21, wherein the one or more EGFR TKI resistant mutations are at residues E709, L718, G719, G724, C797, V843, T854, L861, and/or L792.

23. The use of any one of claims 1-22, wherein the subject has been determined to not have an EGFR mutation at residue C797 or T790.

24. The use of any one of claims 1-23, wherein the subject has a T790 mutation.

25. The use of claim 24, wherein the subject has a T790 mutation in combination with at least one additional mutation.

26. The use of claim 25, wherein the subject has T790M and G719A mutations.

27. The use of claim 25, wherein the subject has T790M and G719S mutations.

28. The use of any one of claims 24-27, wherein the subject is determined to have a mutation at residue at C797.

29. The use of any one of claims 1-28, wherein the one or more EGFR TKI resistant mutations are selected from the group consisting of G719X, E709X, G724S, L718X, L861Q, T8541, V8431, C797S, and/or L792X, wherein X is any amino acid.

30. The use of any one of claims 1-29, wherein the one or more EGFR TKI resistant mutations are selected from the group consisting of L861Q, G719S, L858R/L792H, L858R/C797S, and Exl9del/C797S.

31. The use of any one of claims 1-30, wherein the poziotinib is to be administered at a dose of 8 mg, 12 mg, or 16 mg.

32. The use of any one of claims 1-31, wherein an additional anti-cancer therapy is to be further administered to the subject.

33. The use of any one of claims 1-32, wherein the cancer is oral cancer, oropharyngeal cancer, nasopharyngeal cancer, respiratory cancer, urogenital cancer, gastrointestinal cancer, central or peripheral nervous system tissue cancer, an endocrine or neuroendocrine cancer or hematopoietic cancer, glioma, sarcoma, carcinoma, lymphoma, melanoma, fibroma, meningioma, brain cancer, oropharyngeal cancer, nasopharyngeal cancer, renal cancer, biliary cancer, pheochromocytoma, pancreatic islet cell cancer, Li-Fraumeni tumors, thyroid cancer,

parathyroid cancer, pituitary tumors, adrenal gland tumors, osteogenic sarcoma tumors, multiple neuroendocrine type I and type II tumors, breast cancer, lung cancer, head and neck cancer, prostate cancer, esophageal cancer, tracheal cancer, liver cancer, bladder cancer, stomach cancer, pancreatic cancer, ovarian cancer, uterine cancer, cervical cancer, testicular cancer, colon cancer, rectal cancer or skin cancer.

34. The use of any of claims 1-33, wherein the cancer is non-small cell lung cancer.