

CLAIMS

1. The use of a farnesyltransferase inhibitor (FTI) in the manufacture of a medicament for the treatment of a H-Ras mutant head and neck squamous cell carcinoma (HNSCC) in a subject in need thereof;
wherein the HNSCC is at an advanced stage, metastatic, relapsed or refractory; and
wherein the FTI is selected from the group consisting of tipifarnib, arglabin, perrilyl alcohol, lonafarnib, L778123, L739749, FTI-277, L744832, CP-609,754, R208176, AZD3409, and BMS-214662.
2. The use of claim 1, wherein said HNSCC is human papillomavirus (HPV)-negative.
3. The use of claim 1 or 2, wherein said HNSCC is at an advanced stage or metastatic.
4. The use of claim 1 or 2, wherein said HNSCC is relapsed or refractory.
5. The use of any preceding claim, wherein the H-Ras mutation of said subject comprises an amino acid substitution at a codon selected from the group consisting of G12, G13, and Q61.
6. The use of claim 5, wherein said H-Ras mutation of said subject comprises an amino acid substitution at codon G12.
7. The use of claim 5, wherein said H-Ras mutation of said subject comprises an amino acid substitution at codon G13.
8. The use of claim 5, wherein said H-Ras mutation of said subject comprises an amino acid substitution at codon Q61.
9. The use of any preceding claim, wherein the presence of H-Ras mutation in said subject is determined from a sample of said subject.
10. The use of claim 9, wherein said sample is a tumor biopsy.
11. The use of claim 9, wherein said sample is a tissue biopsy.

12. The use of claim 11, wherein said tissue biopsy is a body fluid selected from blood, plasma, and serum.
13. The use of any of claims 9 to 12, wherein said H-Ras mutation is determined by a method selected from the group consisting of sequencing, Polymerase Chain Reaction (PCR), DNA microarray, Mass Spectrometry (MS), Single Nucleotide Polymorphism (SNP) assay, denaturing high-performance liquid chromatography (DHPLC), and Restriction Fragment Length Polymorphism (RFLP) assay.
14. The use of any of claims 1 to 13, wherein the FTI is lonafarnib.
15. The use of any of claims 1 to 13, wherein the FTI is BMS-214662.
16. The use of any of claims 1 to 13, wherein the FTI is tipifarnib.
17. The use of any preceding claim, wherein the FTI is to be administered at a dose of 1-1000 mg/kg body weight.
18. The use of any preceding claim, wherein the FTI is to be administered at a daily dose of 200 mg, 300 mg, 400 mg, 500 mg, 600 mg, 700 mg, 800 mg, 900 mg, 1000 mg, 1100 mg, 1200 mg, 1300 mg, or 1400 mg.
19. The use of claim 18, wherein the FTI is to be administered at a daily dose of 200 mg.
20. The use of claim 18, wherein the FTI is to be administered at a daily dose of 400 mg.
21. The use of claim 18, wherein the FTI is to be administered at a daily dose of 600 mg.
22. The use of claim 18, wherein the FTI is to be administered at a daily dose of 800 mg.
23. The use of claim 18, wherein the FTI is to be administered at a daily dose of 1000 mg.
24. The use of any preceding claim, wherein the FTI is to be administered twice a day.
25. The use of claim 24, wherein the FTI is to be administered at a dose of 300 mg twice a day.

26. The use of claim 24, wherein the FTI is to be administered at a dose of 600 mg twice a day.
27. The use of claim 24, wherein the FTI is to be administered at a dose of 900 mg twice a day.
28. The use of any preceding claim, wherein the FTI is to be administered for a period of one to seven days.
29. The use of any preceding claim, wherein the FTI is to be administered on days 1-7 and 15-21 of a 28-day treatment cycle.
30. The use of claim 29, wherein the FTI is to be administered for at least 3 cycles.
31. The use of claim 29, wherein the FTI is to be administered for at least 6 cycles.
32. The use of claim 29, wherein said treatment cycle continues for up to 12 months.
33. The use of claim 25, wherein the FTI is to be administered at a dose of 300 mg twice a day for 3 of 4 weeks in repeated 4 week cycles.
34. The use of claim 26, wherein the FTI is to be administered at a dose of 600 mg twice a day on days 1-7 and 15-21 of a 28-day treatment cycle.
35. The use of claim 27, wherein the FTI is to be administered at a dose of 900 mg twice a day on days 1-7 and 15-21 of a 28-day treatment cycle.
36. The use of any preceding claim, wherein the FTI is to be administered before, during, or after irradiation.
37. The use of any preceding claim, wherein the FTI is to be administered with a therapeutically effective amount of a second active agent or a support care therapy.
38. The use of claim 37, wherein said second active agent is a chemotherapy agent selected from the group consisting of 5-FU, cisplatin, carboplatin, taxane, gemcitabine, and

methotrexate.

39. The use of claim 37, wherein said second active agent is an anti-EGFR antibody selected from the group consisting of cetuximab, panitumumab, and afatinib.
40. The use of claim 37, wherein said second active agent is an anti-PD1 antibody or an anti-PDL1 antibody.