CLAIMS

1. An orally consumable composition comprising: a) one or more bitter tastants; and b) a bitter blocker selected from the group consisting of eriodictyol-8-C-β-glucoside, homoeriodictyol 4'-O-glucoside, and homoeriodictyol 7-O-glucoside; optionally, wherein the bitter blocker is present in the orally consumable composition in a concentration between about 10 ppm and about 200 ppm.

2. The composition of claim 1, wherein the one or more bitter tastants are selected from the group consisting of: caffeine, bitter methylxanthines, theobromine, rebaudioside A, a B vitamin, cannabidiol, tetrahydrocannabinol, nicotine, dextromethorphan, dextromethorphan hydrobromide, chlorhexidine, guaifenesin, pseudoephedrine, atorvastatin, aspirin, acetaminophen, diphenhydramine, doxylamine, sildenafil citrate, and loperamide.

3. The composition of claim 1 or claim 2 comprising at least 100 mg/L of the one or more bitter tastants.

4. The composition of any one of claims 1-3, wherein the composition is selected from the group consisting of a food product, a functional food, a pharmaceutical, a dietary supplement, a dental hygiene composition, a food grade gel composition, a cosmetic product, and a flavoring product.

5. The composition of any one of claims 1-4, wherein the composition is a beverage product selected from the group consisting of coffee, tea, fermented tea, a dairy beverage, a plant-based milk beverage, an alcoholic beverage, flavored water, vitamin water, fruit juice, and an energy drink.

6. A method of reducing or blocking the bitter taste of an orally consumable composition comprising one or more bitter tastants, the method comprising adding to the orally consumable composition an effective amount of a bitter blocker selected from the group consisting of eriodictyol-8-C-β-glucoside, homoeriodictyol 4'-O-glucoside, and homoeriodictyol 7-O-glucoside, optionally, such that the bitter taste of the orally consumable composition is reduced by at least 50%.

7. Use of a bitter blocker selected from the group consisting of eriodictyol-8-C-β-glucoside, homoeriodictyol 4'-O-glucoside, and homoeriodictyol 7-O-glucoside, for reducing or blocking the bitter taste of one or more bitter tastants.

8. The method or use of claim 6 or 7, wherein the one or more bitter tastants are selected from the group consisting of: caffeine, bitter methylxanthines, theobromine, rebaudioside A, a B vitamin, cannabidiol, tetrahydrocannabinol, nicotine, dextromethorphan, dextromethorphan hydrobromide, chlorhexidine, guaifenesin, pseudoephedrine, atorvastatin, aspirin, acetaminophen, diphenhydramine, doxylamine, sildenafil citrate, and loperamide.

9. The method or use of any one of claims 6-8, wherein the one or more bitter tastants are in an orally consumable composition.

10. The method or use of claim 9, wherein the bitter blocker reduces the bitter taste of the orally consumable composition by at least 50%.

~~1. A method of reducing or blocking the bitter taste of an orally consumable composition comprising one or more bitter tastants, the method comprising adding to the orally consumable composition an effective amount of a bitter blocker selected from the group consisting of eriodictyol-8-C-β-glucoside, homoeriodictyol 4'-O-glucoside, and homoeriodictyol 7-O-glucoside, optionally, such that the bitter taste of the orally consumable composition is reduced by at least 50%.~~

~~2. The method of claim 1, wherein the one or more bitter tastants are selected from the group consisting of caffeine, bitter methylxanthines, theobromine, rebaudioside A, a B vitamin, cannabidiol, tetrahydrocannabinol, nicotine, dextromethorphan, dextromethorphan hydrobromide, chlorhexidine, guaifenesin, pseudoephedrine, atorvastatin, aspirin, acetaminophen, diphenhydramine, doxylamine, sildenafil citrate, and loperamide.~~

11~~3~~. The method or use of ~~claim 1 or claim 2~~any one of claims 6-10, wherein the orally consumable composition comprises at least 100 mg/L of the one or more bitter tastants.

12~~4~~. The method or use of any one of claims ~~1~~6-~~3~~11, wherein the bitter taste of the orally consumable composition is reduced by at least 60%~~.~~

~~5. The method of any one of claims 1-4, wherein the bitter taste of the orally consumable composition is reduced~~, or by at least 80%.

13~~6~~. The method or use of any one of claims ~~1~~6-~~5~~12, wherein the bitter blocker is eriodictyol-8-C-β-glucoside.

~~7~~14. The method or use of any one of claims ~~1~~6-~~5~~12, wherein the bitter blocker is homoeriodictyol 4'-O-glucoside.

~~8~~15. The method or use of any one of claims ~~1~~6-~~5~~12, wherein the bitter blocker is homoeriodictyol 7-O-glucoside.

~~9. An orally consumable composition comprising: a) one or more bitter tastants; and b) a bitter blocker selected from the group consisting of eriodictyol-8-C-β-glucoside, homoeriodictyol 4'-O-glucoside, and homoeriodictyol 7-O-glucoside; optionally, wherein the bitter blocker is present in the orally consumable composition in a concentration between about 10 ppm and about 200 ppm.~~

~~10. The composition of claim 9, wherein the one or more bitter tastants are selected from the group consisting of: caffeine, bitter methylxanthines, theobromine, rebaudioside A, a B vitamin, cannabidiol, tetrahydrocannabinol, nicotine, dextromethorphan, dextromethorphan hydrobromide, chlorhexidine, guaifenesin, pseudoephedrine, atorvastatin, aspirin, acetaminophen, diphenhydramine, doxylamine, sildenafil citrate, and loperamide.~~

~~11. The composition of claim 9 or claim 10 comprising at least 100 mg/L of the one or more bitter tastants.~~

~~12. The composition of any one of claims 9-11, wherein the composition is selected from the group consisting of a food product, a functional food, a pharmaceutical, a dietary supplement, a dental hygiene composition, a food grade gel composition, a cosmetic product, and a flavoring product.~~

~~13. The composition of any one of claims 9-12, wherein the composition is a beverage product selected from the group consisting of coffee, tea, fermented tea, a dairy beverage, a~~

~~plant-based milk beverage, an alcoholic beverage, flavored water, vitamin water, fruit juice, and an energy drink.~~

~~14. A method of reducing or blocking the bitter taste of an orally consumable composition comprising one or more bitter tastants, the method comprising adding to the orally consumable composition an effective amount of a bitter blocker selected from the group consisting of eriodictyol-8-C-β-glucoside, homoeriodictyol 4'-O-glucoside, and homoeriodictyol 7-O-glucoside, optionally, such that the bitter taste of the orally consumable composition is reduced by at least 50%.~~

~~15. Use of a bitter blocker selected from the group consisting of eriodictyol-8-C-β-glucoside, homoeriodictyol 4'-O-glucoside, and homoeriodictyol 7-O-glucoside, for reducing or blocking the bitter taste of one or more bitter tastants.~~

~~16. The method or use of claim 14 or 15, wherein the one or more bitter tastants are selected from the group consisting of: caffeine, bitter methylxanthines, theobromine, rebaudioside A, a B vitamin, cannabidiol, tetrahydrocannabinol, nicotine, dextromethorphan, dextromethorphan hydrobromide, chlorhexidine, guaifenesin, pseudoephedrine, atorvastatin, aspirin, acetaminophen, diphenhydramine, doxylamine, sildenafil citrate, and loperamide.~~

~~17. The method or use of any one of claims 14-16, wherein the one or more bitter tastants are in a orally consumable composition.~~

~~18. The method or use of claim 17, wherein the bitter blocker reduces the bitter taste of the orally consumable composition by at least 50%.~~

~~19~~16. A method of preparing a flavonoid glycoside, the method comprising incubating a reaction mixture comprising: a) uridine diphosphate-glucose, b) eriodictyol as a substrate, and c) a glycosyltransferase comprising an amino acid sequence having at least 80% sequence identity to SEQ ID NO: 1, wherein a glucose is covalently coupled to the eriodictyol substrate to produce eriodictyol-8-C-β-glucoside, optionally wherein the glycosyltransferase comprises the amino acid sequence of SEQ ID NO: 1.

~~20~~17. A method of preparing a flavonoid glycoside, the method comprising incubating a reaction mixture comprising: a) uridine diphosphate-glucose, b) homoeriodictyol as a substrate, and c) a glycosyltransferase comprising an amino acid sequence having at least 80% sequence identity to SEQ ID NO: 3 or SEQ ID NO: 5, wherein a glucose is covalently coupled to the homoeriodictyol substrate to produce homoeriodictyol 4'-O-glucoside and/or homoeriodictyol 7-O-glucoside, optionally wherein the glycosyltransferase comprises the amino acid sequence of SEQ ID NO: 3 or SEQ ID NO: 5.

~~21~~18. The method of claim ~~19~~ 16 or claim ~~20~~17, wherein the reaction mixture is in vitro.

~~22~~19. The method of any one of claims ~~19~~16-~~21~~18, wherein the reaction mixture is a cell-based reaction mixture.

~~23~~20. The method of claim ~~22~~19, wherein the cell-based reaction mixture comprises a cell comprising a polynucleotide encoding the glycosyltransferase.

~~24. The method of claim 22 or 23, wherein the cell is a bacterial cell.~~

~~25. The method of claim 24, wherein the host cell is an *Escherichia coli* (*E. coli*) cell.~~

~~26~~21. A host cell that comprises a polynucleotide encoding a glycosyltransferase, wherein the polynucleotide comprises a nucleotide sequence that is at least 90% identical to any one of SEQ ID NOs: 2, 4, 6.

~~27~~22. The host cell of claim ~~26~~21, wherein the polynucleotide comprises the sequence of any one of SEQ ID NOs: 2, 4, 6.

~~28. The host cell of claim 26 or claim 27, wherein the host cell is a bacterial cell.~~

~~29. The host cell of claim 28, wherein the host cell is an *Escherichia coli* (*E. coli*) cell.~~

~~30~~23. A reaction mixture comprising:

(a) uridine diphosphate-glucose,

(b) a natural flavanone, and

(c) a host cell comprising a glycosyltransferase comprising an amino acid sequence having at least 80% sequence identity to any one of SEQ ID NOs: 1, 3, 5.

~~31~~24. The reaction mixture of claim ~~30~~23, wherein the natural flavanone is homoeriodictyol, eriodictyol, or combinations thereof.

~~32~~25. The method of claims 19 or 20, the host cell of claims 21 or 22, or the reaction mixture of claim 30 or claim 31, wherein the host cell is a bacterial cell.

~~33~~26. The method of claim 25, the host cell of claim 25, or the reaction mixture of claim ~~32~~25, wherein the host cell is an *Escherichia coli* (*E. coli*) cell.

~~34~~27. The reaction mixture of any one of claims 23~~30~~-26~~33~~, wherein the glycosyltransferase comprises an amino acid sequence of any one of SEQ ID NOs: 1, 3, 5.

~~35~~28. The reaction mixture of any one of claims ~~30~~23-~~34~~27, further comprising: eriodictyol-8-C-β-glucoside, homoeriodictyol 4'-O-glucoside, homoeriodictyol 7-O-glucoside, or combinations thereof.

~~36. A compound produced by the method of any one of claims 20-25.~~

~~37. A compound selected from eriodictyol-8-C-β-glucoside, homoeriodictyol-4'-O-glucoside, and homoeriodictyol-7-O-glucoside, optionally, in any one of the amounts provided herein.~~

~~38. A composition comprising the compound of claim 37, optionally, with any one or more of the bitter tastants provided herein.~~