CLAIMS

What is claimed is:

1. ~~The~~ A use of dipivefrin or a pharmaceutically acceptable salt thereof in the manufacture of a~~n~~ medicament for systemic delivery of a therapeutically effective amount of epinephrine to treat anaphylaxis, asthma, bronchitis, emphysema, croup, a respiratory infection, cancer, or a microbial infection in a dog or human subject, wherein the medicament is to be administered as an oral~~ly~~ dosage form selected from an orally disintegrating tablet, an orally dissolving tablet, or an oral aqueous solution.

2. The use of claim 1, wherein the use is to treat anaphylaxis, asthma, bronchitis, emphysema, croup, or a respiratory infection.

3. The use of claim 2, wherein the use is to treat anaphylaxis.

4. The use of claim 3, wherein the use is to treat anaphylaxis and the therapeutically effective amount of epinephrine is an amount sufficient to relieve at least one symptom of anaphylaxis in the subject.

5. The use of claim 3, wherein the use is to treat is anaphylaxis and the therapeutically effective amount of epinephrine is an amount sufficient to reduce the severity of anaphylaxis or inhibit the onset of anaphylaxis in the subject following exposure of the subject to an allergen.

6. The use of claim 1, wherein the use is to treat cancer.

7. The use of claim 6, wherein the cancer is skin cancer, brain cancer, a glioma, a sarcoma, breast cancer, lung cancer, non-small-cell lung cancer, mesothelioma, appendiceal cancer, a genitourinary cancer, a renal cell carcinoma, prostate cancer, bladder cancer, testicular cancer, penile cancer, cervical cancer, ovarian cancer, von Hippel Lindau disease, a head and neck cancer, a gastrointestinal cancer, a hepatocellular carcinoma, gallbladder cancer, esophageal cancer, gastric cancer, colorectal cancer, pancreatic cancer, a neuroendocrine tumor, a thyroid tumor, a pituitary tumor, an adrenal tumor, a hematological malignancy, a lymphoma, a leukemia, or a combination thereof.

8. The use of claim 6, wherein the cancer is skin cancer, and the skin cancer is a melanoma.

9. The use of any one of claims 6 to 8, wherein dipivefrin or its pharmaceutically acceptable salt is an adjunctive anticancer treatment and at least one additional anticancer treatment is to be administered to the subject.

10. The use of claim 1, wherein the use is to treat a microbial infection.

11. The use of claim 10, wherein the microbial infection is a bacterial, viral, fungal, or parasitic infection.

12. The use of claim 11, wherein the microbial infection is a viral infection.

13. The use of claim 12, wherein the viral infection is an influenza infection.

14. The use of claim 11, wherein the microbial infection is a bacterial infection and the bacterial infection is a methicillin-resistant *Staphylococcus aureus* (MRSA) infection.

15. The use of claim 10, wherein dipivefrin or its pharmaceutically acceptable salt is an adjunctive antimicrobial agent and at least one additional antimicrobial agent is to be administered to the subject.

16. The use of claim 15 wherein the additional antimicrobial agent is an antibiotic.

17. The use of claim 11, wherein the microbial infection is a viral infection, wherein an antiviral agent is to be administered to the subject.

18. The use of any one of claims 1 to 8, wherein the dipivefrin is racemic dipivefrin.

19. The use of any one of claims 1 to 8, wherein the dipivefrin is L-dipivefrin.

20. The use of any one of claims 1 to 8, wherein the dipivefrin is dipivefrin hydrochloride.

21. The use of any one of claims 1 to 8, wherein the dipivefrin in L-dipivefrin hydrochloride.

22. The use of any one of claims 1 to 8, wherein the dipivefrin is isotopically labeled dipivefrin or a pharmaceutically acceptable salt thereof.

~~23. The use of any one of claims 1 to 8, wherein the dipivefrin or salt thereof, is in the form of oral solution, a tablet, or a capsule.~~

~~24. The use of claim 23, wherein the dipivefrin or salt thereof is in the form of an oral aqueous solution.~~

~~25~~23. The use of any one of claims 1 to 8~~23~~, wherein the dipivefrin or salt thereof is in the form of an orally dissolving tablet or orally disintegrating tablet.

~~26~~24. The use of any one of claims 1 to 8, wherein the dipivefrin or salt thereof comprises a dosage form comprising 0.01 mg to 150 mg, 0.01mg to 100 mg, 0.01mg to 50 mg, 0.1 mg to 20 mg, 0.1 mg to 10mg, 0.1 mg to 5 mg, 0.1 mg to 3 mg, 2.5mg, 2mg, or 1.5 mg dipivefrin.

~~27~~25. The use of any one of claims 1 to 8 wherein the therapeutically effective amount of dipivefrin or salt thereof is an amount sufficient to provide an epinephrine plasma C_{max} of 0.1 to 50.0 ng/mL in the subject.

~~28~~26. The use of any one of claims 1 to 8 wherein the therapeutically effective amount of dipivefrin or salt thereof is an amount sufficient to provide a pharmacokinetic profile substantially equivalent to the epinephrine pharmacokinetic profile of an US FDA-approved injectable dosage form comprising epinephrine, wherein the US FDA-approved injectable dosage form is for either intramuscular or subcutaneous administration.

~~29~~27. The use of claim ~~28~~ 26 wherein the US FDA-approved dosage form comprises a 0.3 mg epinephrine dosage form for intramuscular administration.

~~30~~28. The use of claim ~~28~~ 26 wherein the US FDA-approved dosage form comprises a 0.15 mg epinephrine dosage form for intramuscular administration.

~~31~~29. The use of claim ~~28~~ 26 wherein the US FDA-approved dosage form comprises a 0.1 mg epinephrine dosage form for intramuscular administration.

~~32~~30. The use of claim ~~28~~ 26 wherein the US FDA-approved dosage form comprises a 0.3 mg epinephrine dosage form for subcutaneous administration.

~~33~~31. The use of claim ~~28~~ 26 wherein the US FDA-approved dosage form comprises a 0.15 mg epinephrine dosage form for subcutaneous administration.

~~34~~32. The use of claim ~~28~~ 26 wherein the US FDA-approved dosage form comprises a 0.1 mg epinephrine dosage form for subcutaneous administration.

~~35~~33. The use of any one of claims 1 to 8 wherein the therapeutically effective amount of epinephrine is to be provided to the subject 30 minutes, 15 minutes, 10 minutes, or 5 minutes after the medicament has been administered.

~~36~~34. The use of any one of claims 1 to 8 wherein a T_{max} of epinephrine is to be provided 45 minutes after the medicament is to be administered.

~~37~~35. An orally dissolving tablet comprising dipivefrin or a dipivefrin salt in a matrix capable of dissolving in the oral cavity in 2 minutes or less.

~~38~~36. The tablet of claim ~~37~~35, wherein the tablet comprises dipivefrin HCl.

~~39~~37. The tablet of claim ~~38~~36, wherein the tablet additionally comprises a water soluble polymer and a sweetener.

~~40~~38. The tablet of claim ~~38~~ 36 wherein the water soluble polymer is gelatin, HPMC, or a combination of the foregoing.