

-continued

<223> OTHER INFORMATION: SALMFamide consensus sequence

<400> SEQUENCE: 5

Ser Ala Leu Met Phe
1 5

What is claimed is:

1. A substantially monodispersed mixture of conjugates, each conjugate comprising a drug coupled to an oligomer that comprises a polypropylene glycol moiety having at least 2 polypropylene glycol subunits.

2. The mixture according to claim 1, wherein the polypropylene glycol moiety has at least 5 polypropylene glycol subunits.

3. The mixture according to claim 1, wherein the polypropylene glycol moiety has at least 7 polypropylene glycol subunits.

4. The mixture according to claim 1, wherein the oligomer is covalently coupled to the drug.

5. The mixture according to claim 1, wherein the oligomer further comprises a lipophilic moiety.

6. The mixture according to claim 1, wherein the polypropylene glycol moiety is uniform.

7. The mixture according to claim 6, wherein the oligomer is devoid of a lipophilic moiety, and wherein the conjugate is amphiphilically balanced such that it is aqueously soluble and able to penetrate biological membranes.

8. The mixture according to claim 1, wherein at least 96 percent of the conjugates in the mixture have the same molecular weight.

9. The mixture according to claim 1, wherein the mixture is a monodispersed mixture.

10. The mixture according to claim 1, wherein the mixture is a substantially purely monodispersed mixture.

11. The mixture according to claim 1, wherein at least 96 percent of the conjugates in the mixture have the same molecular weight and the same molecular structure.

12. The mixture according to claim 1, wherein the mixture is a purely monodispersed mixture.

13. The mixture according to claim 12, wherein the oligomer is covalently coupled to the drug.

14. The mixture according to claim 12, wherein the oligomer further comprises a lipophilic moiety.

15. The mixture according to claim 12, wherein the polypropylene glycol moiety is uniform.

16. The mixture according to claim 15, wherein the oligomer is devoid of a lipophilic moiety, and wherein the conjugate is amphiphilically balanced such that it is aqueously soluble and able to penetrate biological membranes.

17. The mixture according to claim 1, wherein the mixture has an in vivo activity that is greater than the in vivo activity of a polydispersed mixture of drug-oligomer conjugates having the same number average molecular weight as the mixture.

18. The mixture according to claim 1, wherein the mixture has an in vitro activity that is greater than the in vitro activity of a polydispersed mixture of drug-oligomer conjugates having the same number average molecular weight as the mixture.

19. The mixture according to claim 1, wherein the mixture has an increased resistance to degradation by chymotrypsin when compared to the resistance to degradation by chymotrypsin of a polydispersed mixture of drug-oligomer conjugates having the same number average molecular weight as the mixture.

20. The mixture according to claim 1, wherein the mixture has an inter-subject variability that is less than the inter-subject variability of a polydispersed mixture of drug-oligomer conjugates having the same number average molecular weight as the mixture.

21. The mixture according to claim 1, wherein the drug is a polypeptide.

22. The mixture according to claim 21, wherein the polypeptide is selected from the group consisting of adrenocorticotrophic hormone peptides, adrenomedullin peptides, allatostatin peptides, amylin peptides, amyloid beta-protein fragment peptides, angiotensin peptides, antibiotic peptides, antigenic polypeptides, anti-microbial peptides, apoptosis related peptides, atrial natriuretic peptides, bag cell peptides, bombesin peptides, bone GLA peptides, bradykinin peptides, brain natriuretic peptides, C-peptides, C-type natriuretic peptides, calcitonin peptides, calcitonin gene related peptides, CART peptides, casomorphin peptides, chemotactic peptides, cholecystokinin peptides, colony-stimulating factor peptides, corticotropin releasing factor peptides, cortistatin peptides, cytokine peptides, dermorphin peptides, dynorphin peptides, endorphin peptides, endothelin peptides, ETa receptor antagonist peptides, ETb receptor antagonist peptides, enkephalin peptides, fibronectin peptides, galanin peptides, gastrin peptides, glucagon peptides, Gn-RH associated peptides, growth factor peptides, growth hormone peptides, GTP-binding protein fragment peptides, guanylin peptides, inhibin peptides, insulin peptides, interleukin peptides, laminin peptides, leptin peptides, leucokinin peptides, luteinizing hormone-releasing hormone peptides, mastoparan peptides, mast cell degranulating peptides, melanocyte stimulating hormone peptides, morphiceptin peptides, motilin peptides, neuro-peptides, neuropeptide Y peptides, neurotropic factor peptides, orexin peptides, opioid peptides, oxytocin peptides, PACAP peptides, pancreastatin peptides, pancreatic polypeptides, parathyroid hormone peptides, parathyroid hormone-related peptides, peptide T peptides, prolactin-releasing peptides, peptide YY peptides, renin substrate peptides, secretin peptides, somatostatin peptides, substance P peptides, tachykinin peptides, thyrotropin-releasing hormone peptides, toxin peptides, vasoactive intestinal peptides, vasopressin peptides, and virus related peptides.

23. The mixture according to claim 21, wherein the oligomer is covalently coupled to a nucleophilic residue of the polypeptide.

24. The mixture according to claim 1, wherein each conjugate comprises a plurality of oligomers.

25. The mixture according to claim 24, wherein each oligomer in the plurality of oligomers is the same.

26. The mixture according to claim 1, wherein the oligomer comprises a first polypropylene glycol moiety covalently coupled to the drug by a non-hydrolyzable bond and a second polypropylene glycol moiety covalently coupled to the first polypropylene glycol moiety by a hydrolyzable bond.

27. The mixture according to claim 26, wherein the oligomer further comprises a lipophilic moiety covalently coupled to the second polypropylene glycol moiety.