CLAIMS

1. Use of a chorionic gonadotropin carboxy terminal peptide (CTP)-modified polypeptide comprising a growth hormone in the manufacture of a medicament for treating a growth hormone deficiency in a human subject as measured by maintaining insulin like growth factor (IGF-1) levels within a normal therapeutic range of +/-2 standard deviations (SD), wherein the CTP-modified polypeptide comprises one chorionic gonadotropin carboxy terminal peptide (CTP) attached to the amino terminus of the growth hormone, and two chorionic gonadotropin CTPs attached in tandem to the carboxy terminus of the growth hormone, and wherein the human subject is to be administered a therapeutically effective amount of the CTP-modified polypeptide once per week at a dose of 5 to 60 milligrams per week (mg/week).

2. The use according to claim 1, wherein at least one CTP is glycosylated.

3. The use according to claim 1 or claim 2, wherein at least one CTP is attached to the growth hormone *via* a linker.

4. The use according to claim 3, wherein the linker is a peptide bond.

5. The use according to any one of claims 1 to 4, wherein the growth hormone is human growth hormone.

6. The use according to any one of claims 1 to 5, wherein at least one CTP has the amino acid sequence of SEQ ID NO: 1 or SEQ ID NO: 2.

7. The use according to any one of claims 1 to 6, wherein the amino acid sequence of said polypeptide comprises the sequence of amino acids 27 to 301 of SEQ ID NO: 11.

8. The use according to any one of claims 1 to 7, wherein the therapeutically effective amount comprises a once per week dose of 5 to 10 mg/week.

9. The use according to any one of claims 1 to 8, wherein the human subject is male.

10. The use according to any one of claims 1 to 9, wherein the CTP-modified polypeptide is to be administered subcutaneously to the human subject.

11. The use according to any one of claims 1 to 10, wherein the IGF-1 levels are maintained within a normal therapeutic range of +/-1.5 standard deviations (SD).