WHAT IS CLAIMED IS:

1. An analog of a glucagon peptide, the analog comprising SEQ ID NO: 1 with up to 10 amino acid modifications, wherein the analog comprises:

~~(i) SEQ ID NO: 1 with at least one and up to 10 amino acid modifications, wherein at least one of the amino acid modifications confers a stabilized alpha helix structure in the C-terminal portion of the analog, optionally, wherein (a) the analog comprises~~

(i) an amino acid comprising an imidazole ring at position 1

(ii) (a) an intramolecular bridge between the side chains of an amino acid at position i and an amino acid at position i+4 or between the side chains of amino acids at positions j and j+3, wherein i is 12, 13, 16, 17, 20 or 24 and j is 17, (b) an α, α-disubstituted amino acid at one, two, three or more of positions 16, 20, 21 or 24 of the analog ~~are substituted with an α, α-disubstituted amino acid~~, or (c) both (a) and (b).;

(iii)~~(ii)~~ an extension of 1 to 21 amino acids C-terminal to the amino acid at position 29 comprising (a) the amino acid sequence of GPSSGAPPPS (SEQ ID NO: 26) or XGPSSGAPPPS (SEQ ID NO: 674), wherein X is any amino acid[[,]] or (b) an amino acid sequence which has at least 80% sequence identity to SEQ ID NO: 26 or SEQ ID NO: 674, ~~or (c) the amino acid sequence of (a) or (b) with one or more conservative amino acid substitutions, wherein the amino acid sequence is C-terminal to the amino acid at position 29 of the analog,~~ and

(iv)~~(iii) at least one of the following:~~ an acyl or alkyl group which is non-native to a naturally-occurring amino acid at (a) position 10 or (b) one of the amino acids of the extension located at any of positions 37-43 (according to the numbering of SEQ ID NO: 1) or (c) both (a) and (b),

~~(a) at least one of the amino acids of the extension located at any of positions 37-43 (according to the numbering of SEQ ID NO: 1) comprises an acyl or alkyl group which is non-native to a naturally-occurring amino acid,~~

~~(b) the analog comprises an amino acid comprising an acyl or alkyl group, which is non-native to a naturally-occurring amino acid, at position 10 of the analog, or~~

~~(c) a combination thereof;~~

wherein, when the analog lacks a hydrophilic moiety, the analog exhibits at least [[0.1]]10% activity of native GIP at the GIP receptor, and wherein the selectivity for the GLP-1 receptor of the analog is less than 100-fold (higher or lower) the selectivity for the GIP receptor and/or the glucagon receptor.

2. The analog of claim 1, further comprising one or more of: Gln at position 17, Ala at position 18, Glu at position 21, Ile at position 23, and Ala or Cys at position 24, or one or more conservative amino acid substitutions thereof.

3. The analog of claim 1 or 2, comprising a C-terminal amide.

4. The analog of any of claims 1, 2, and 3, comprising an amino acid substitution at position 1, position 2, or positions 1 and 2, wherein the amino acid substitution(s) achieve DPP-IV protease resistance, optionally, wherein position 2 is an amino acid selected from the group consisting of: D-serine, alanine, D-alanine, valine, glycine, N-methyl serine, N-methyl alanine, and amino isobutyric acid (AIB).

5. The analog of any of claims 1, 2, 3, and 4, wherein the amino acid at position 1 ~~comprises an imidazole ring, optionally, wherein the amino acid at position 1~~ is His.

6. The analog of any of claims 1, 2, 3, 4, and 5, comprising amino acid modifications at one, two or all of positions 27, 28 and 29, optionally, wherein (a) the Met at position 27 is substituted with a large aliphatic amino acid, optionally Leu, (b) the Asn at position 28 is substituted with a small aliphatic amino acid, optionally Ala, (c) the Thr at position 29 is substituted with a small aliphatic amino acid, optionally Gly, or (d) a combination of two or all of (a), (b), and (c).

7. The analog of any of claims 1, 2, 3, 4, 5, and 6, comprising one or more of the following modifications:

a. Ser at position 2 substituted with Ala;

b. Gln at position 3 substituted with Glu or a glutamine analog;

c. Thr at position 7 substituted with a Ile;

d. Tyr at position 10 substituted with Trp or an amino acid comprising an acyl or alkyl group which is non-native to a naturally-occurring amino acid;