WHAT IS CLAIMED IS:

1. An anti-progastrin (anti-PG) antibody for use in a method for treating pancreatic cancer wherein the anti-PG antibody is administered to a subject diagnosed with pancreatic cancer in an amount sufficient to provide therapeutic benefit.

2. The antibody according to claim 1, wherein the anti-PG antibody is an anti-hPG monoclonal antibody.

3. The antibody according to claim 2, wherein the anti-hPG monoclonal antibody is humanized anti-hPG monoclonal antibody.

4. The antibody according to claim 2, wherein the anti-hPG monoclonal antibody is an N-terminal anti-hPG monoclonal antibody.

5. The antibody according to claim 4 wherein the N-terminal anti-hPG monoclonal antibody binds an epitope comprising a sequence selected from the group consisting of DAPLG (SEQ ID NO:28), PDAPLG (SEQ ID NO:29), PRSQQPD (SEQ ID NO:30), WKPRSQQPD (SEQ ID NO:31) and WKPRSQQPDAPLG (SEQ ID NO:32).

6. The antibody according to claim 4, wherein the N-terminal anti-hPG monoclonal antibody is raised against an immunogen comprising a peptide having the sequence SWKPRSQQPDAPLG (SEQ ID NO:25).

7. The antibody according to claim 4, wherein the N-terminal anti-hPG monoclonal antibody comprises three V_H CDRs corresponding in sequence to the V_H CDRs of MAb3, MAb4, MAb15, MAb16 or MAb19 and three V_L CDRs corresponding in sequence to the V_L CDRs of MAb3, MAb4, MAb15, MAb16 or MAb19.

8. The antibody according to claim 4, wherein the anti-hPG monoclonal antibody competes for binding hPG with a reference antibody selected from the group consisting of MAb3, MAb4, MAb15, MAb16 and MAb19.

9. The antibody according to claim 2, wherein the anti-hPG monoclonal antibody is a C-terminal anti-hPG monoclonal antibody.

10. The antibody according to claim 9, wherein the C-terminal anti-hPG monoclonal antibody binds an epitope comprising a sequence selected from the group consisting of FGRR (SEQ ID NO:33), MDFGR (SEQ ID NO:34), AEDEN (SEQ ID NO:35) and GWMDFGRR (SEQ ID NO:36).

11. The antibody according to claim 10, wherein the C-terminal anti hPG monoclonal antibody is raised against an immunogen comprising a peptide having the sequence QGPWLEEEEEAYGWMDFGRRSAEDEN (SEQ ID NO:27).

12. The antibody according to claim 9, wherein the C-terminal anti-hPG monoclonal antibody comprises three V_H CDRs corresponding in sequence to the CDRs of MAb5, MAb6, MAb7, MAb8, MAb11, MAb12 or MAb13 and three V_L CDRs corresponding in sequence to the CDRs of MAb5, MAb6, MAb7, MAb8, MAb11, MAb12 or MAb13.

13. The antibody according to claim 9, wherein the C-terminal anti-hPG monoclonal antibody comprises CDRs corresponding in sequence to the CDRs of MAb5, MAb6, MAb7, MAb8, MAb11, MAb12 or MAb13.

14. The antibody according to claim 9, wherein the C-terminal anti-hPG monoclonal antibody competes for binding hPG with a reference antibody selected from the group consisting of MAb5, MAb6, MAb7, MAb8, MAb11, MAb12 or MAb13.

15. The antibody according to claim 1, wherein the pancreatic cancer is primary pancreatic cancer.

16. The antibody according to claim 1, wherein the pancreatic cancer is metastatic pancreatic cancer.

17. The antibody according to claim 2, wherein the anti-hPG monoclonal antibody is administered adjunctive to surgical resection of the tumor.

18. The antibody according to claim 2, wherein the anti-hPG monoclonal antibody is administered adjunctive to chemotherapy.

19. A method of diagnosing pancreatic cancer in a subject exhibiting at least one symptom of pancreatic cancer, comprising determining whether the subject has a plasma or serum progastrin concentration at or above about 50 pM, where such a concentration, when coupled with at least one other symptom of pancreatic cancer, indicates the subject likely has pancreatic cancer.

20. A method of monitoring the effectiveness of a pancreatic cancer treatment, comprising determining whether a subject being treated for pancreatic cancer has a plasma or serum progastrin concentration below about 50 pM, where such a concentration indicates the treatment is effective.

The claims defining the invention are as follows

1. Use of an anti-human progastrin (hPG) antibody for the manufacture of a medicament for use in treatment of pancreatic cancer, wherein said anti-hPG antibody is a monoclonal antibody that specifically binds to human progastrin polypeptide (hPG) having an amino acid sequence of SEQ ID NO:101 but does not detectably bind to an amidated gastrin 17 consisting of SEQ ID NO:104, a glycine-extended gastrin 17 consisting of SEQ ID NO:105, or C-terminal Flanking Peptide (CTFP) consisting of SEQ ID NO:106.

2. The use of claim 1 wherein the anti-hPG antibody is humanized.

3. The use of claim 1 wherein the anti-hPG antibody is an N-terminal anti-hPG antibody that binds to an N-terminal region of hPG comprising residues 1 to 14 (SEQ ID NO:25).

4. The use of claim 3 wherein the N-terminal anti-hPG antibody binds an epitope comprising a sequence selected from the group consisting of DAPLG (SEQ ID NO:28), PDAPLG (SEQ ID NO:29), PRSQQPD (SEQ ID NO:30), WKPRSQQPD (SEQ ID NO:31) and WKPRSQQPDAPLG (SEQ ID NO:32).

5. The use of claim 3 wherein the N-terminal anti-hPG antibody is raised against an immunogen comprising a peptide having the sequence SWKPRSQQPDAPLG (SEQ ID NO:25).

6. The use of claim 3 wherein the N-terminal anti-hPG monoclonal antibody comprises:

a. a heavy chain variable region in which CDR1 comprises the amino acid sequence of V_H CDR 1.3 (SEQ ID NO:1), CDR2 comprises the amino acid sequence of V_H CDR 2.3 (SEQ ID NO:2), and CDR3 comprises the amino acid sequence of V_H CDR 3.3 (SEQ ID NO:3), and a light chain variable region in which CDR1 comprises the amino acid sequence of V_L CDR 1.3 (SEQ ID NO:4), CDR2 comprises the amino acid sequence of V_L CDR 2.3 (SEQ ID NO:5), and CDR3 comprises the amino acid sequence of V_L CDR 3.3 (SEQ ID NO:6);

b. a heavy chain variable region in which CDR1 comprises the amino acid sequence of V_H CDR 1.4 (SEQ ID NO:7), CDR2 comprises the amino acid sequence of V_H CDR 2.4 (SEQ ID NO:8), and CDR3 comprises the amino acid

sequence of V_H CDR 3.4 (SEQ ID NO:9), and a light chain variable region in which CDR1 comprises the amino acid sequence of V_L CDR 1.4 (SEQ ID NO:10), CDR2 comprises the amino acid sequence of V_L CDR 2.4 (SEQ ID NO:5), and CDR3 comprises the amino acid sequence of V_L CDR 3.4 (SEQ ID NO:11);

c. a heavy chain variable region in which CDR1 comprises the amino acid sequence of V_H CDR 1.16 (SEQ ID NO:39), CDR2 comprises the amino acid sequence of V_H CDR 2.16 (SEQ ID NO:43), and CDR3 comprises the amino acid sequence of V_H CDR 3.16 (SEQ ID NO:47), and a light chain variable region in which CDR1 comprises the amino acid sequence of V_L CDR 1.16 (SEQ ID NO:50), CDR2 comprises the amino acid sequence of V_L CDR 2.16 (SEQ ID NO:53), and CDR3 comprises the amino acid sequence of V_L CDR 3.16 (SEQ ID NO:57); or

d. a heavy chain variable region in which CDR1 comprises the amino acid sequence of V_H CDR 1.19 (SEQ ID NO:40), CDR2 comprises the amino acid sequence of V_H CDR 2.19 (SEQ ID NO:44), and CDR3 comprises the amino acid sequence of V_H CDR 3.19 (SEQ ID NO:48), and a light chain variable region in which CDR1 comprises the amino acid sequence of V_L CDR 1.19 (SEQ ID NO:51), CDR2 comprises the amino acid sequence of V_L CDR 2.19 (SEQ ID NO:54), and CDR3 comprises the amino acid sequence of V_L CDR 3.19 (SEQ ID NO:58).

7. The use of claim 3 wherein the anti-hPG antibody competes for binding hPG with a reference antibody selected from the group consisting of:

a. a monoclonal antibody comprising a heavy variable domain sequence of SEQ ID NO:12 and a light chain variable domain sequence of SEQ ID NO:13;

b. a monoclonal antibody comprising a heavy variable domain sequence of SEQ ID NO:14 and a light chain variable domain sequence of SEQ ID NO:15;

c. a monoclonal antibody comprising a heavy variable domain sequence of SEQ ID NO:61 and a light chain variable domain sequence of SEQ ID NO:65; and

d. a monoclonal antibody comprising a heavy variable domain sequence of SEQ ID NO:62 and a light chain variable domain sequence of SEQ ID NO:66.

8. The use of claim 1 wherein the anti-hPG antibody is a C-terminal anti-hPG monoclonal antibody that binds to an C-terminal region of hPG comprising residues 55 to 80 (SEQ ID NO:27).

9. The use of claim 8 wherein the C-terminal anti-hPG antibody binds an epitope comprising a sequence selected from the group consisting of FGRR (SEQ ID NO:33), MDFGR (SEQ ID NO:34), AEDEN (SEQ ID NO:35) and GWMDFGRR (SEQ ID NO:36).

10. The use of claim 8 wherein the C-terminal anti hPG antibody is raised against an immunogen comprising a peptide having the sequence QGPWLEEEEEAYGWMDFGRRSAEDEN (SEQ ID NO:27).

11. The use of claim 8 wherein the C-terminal anti hPG monoclonal antibody comprises:

a. a heavy chain variable region in which CDR1 comprises the amino acid sequence of VH CDR 1.8 (SEQ ID NO:37), CDR2 comprises the amino acid sequence of VH CDR 2.8 (SEQ ID NO:41), and CDR3 comprises the amino acid sequence of VH CDR 3.8 (SEQ ID NO:45), and a light chain variable region in which CDR1 comprises the amino acid sequence of VL CDR 1.8 (SEQ ID NO:49), CDR2 comprises the amino acid sequence of VL CDR 2.8 (SEQ ID NO:52), and CDR3 comprises the amino acid sequence of VL CDR 3.8 (SEQ ID NO:55); or

b. a heavy chain variable region in which CDR1 comprises the amino acid sequence of VH CDR 1.13 (SEQ ID NO:38), CDR2 comprises the amino acid sequence of VH CDR 2.13 (SEQ ID NO:42), and CDR3 comprises the amino acid sequence of VH CDR 3.13 (SEQ ID NO:46), and a light chain variable region in which CDR1 comprises the amino acid sequence of VL CDR 1.13 (SEQ ID NO:50), CDR2 comprises the amino acid sequence of VL CDR 2.13 (SEQ ID NO:53), and CDR3 comprises the amino acid sequence of VL CDR 3.13 (SEQ ID NO:56).

12. The use of claim 8 wherein the C-terminal anti-hPG monoclonal antibody competes for binding hPG with a reference antibody selected from :

a. a monoclonal antibody comprising a heavy chain variable domain sequence of SEQ ID NO:59 and a light chain variable domain sequence of SEQ ID NO:63; and

b. a monoclonal antibody comprising a heavy chain variable domain sequence of SEQ ID NO:60 and a light chain variable domain sequence of SEQ ID NO:64.

13. The use of any one of claims 1 to 12 wherein the pancreatic cancer is primary pancreatic cancer.

14. The use of any one of claims 1 to 12 wherein the pancreatic cancer is metastatic pancreatic cancer.

15. The use of any one of claims 1 to 14 wherein the medicament is formulated to be administered adjunctive to surgical resection of a tumor.

16. The use of any one of claims 1 to 14 wherein medicament is formulated to be administered adjunctive to chemotherapy.