WHAT IS CLAIMED IS:

1. A method of preventing gastrointestinal cancer in a human subject, comprising administering to a human subject predisposed to develop adenomatous polyps an amount of an anti-PG monoclonal antibody sufficient to provide a therapeutic benefit.

2. The method of **claim 1** in which the anti-hPG monoclonal antibody is a humanized anti-hPG monoclonal antibody.

3. The method of **claim 1** in which the anti-hPG monoclonal antibody is an N-terminal anti-hPG monoclonal antibody.

4. The method of **claim 3** in which 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).

5. The method of **claim 4** in which the N-terminal anti-hPG monoclonal antibody is raised against an immunogen comprising a peptide having the sequence SWKPRSQQPDAPLG (SEQ ID NO:25).

6. The method of **claim 4** in which 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.

7. The method of **claim 4** in which 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.

8. The method of **claim 1** in which the anti-hPG monoclonal antibody is a C-terminal anti-hPG monoclonal antibody.

9. The method of **claim 8** in which 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).

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

11. The method of **claim 8** in which 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.

12. The method of **claim 8** in which 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 and MAb13.

13. The method of **claim 1**, wherein the subject has a mutation in the APC gene associated with adenomatous polyposis.

14. The method of **claim 13**, wherein the subject has familial adenomatous polyposis.

15. The method of **claim 13**, wherein the subject has sporadic adenomatous polyposis.

16. The method of **claim 1**, in which the anti-hPG monoclonal antibody is administered adjunctive to surgical resection of tissue comprising adenomatous polyps.

17. The method of **claim 1**, in which the anti-hPG monoclonal antibody is administered adjunctive to chemotherapy.

18. The method of **claim 1**, in which the anti-hPG monoclonal antibody is administered adjunctive to treatment with a non-steroidal anti-inflammatory drug.

19. A method of identifying a subject in need of colonoscopy comprising determining whether a subject predisposed to develop adenomatous polyps has a plasma or serum progastrin concentration at or above about 50 pM, where such a concentration in said subject is indicative of a need for follow-up colonoscopy.

20. A method of identifying a subject with increased probability of having adenomatous polyps comprising determining the level of PG in samples of a body fluid from a subject predisposed to develop adenomatous polyps, and comparing the level of PG in the sample to a baseline, wherein a level of PG in the sample above the baseline level is indica treatment

The claims defining the invention are as follows:

1. Use of an amount of an anti-hPG monoclonal antibody in manufacture of a medicament for the prevention of gastrointestinal cancer in a human subject predisposed to developing adenomatous polyps.

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

3. The use of claim 1or 2 wherein the anti-hPG monoclonal antibody is an N-terminal anti-hPG monoclonal antibody.

4. The use of claim 3 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).

5. The use of 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).

6. The use of claim 4 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 4 wherein the anti-hPG monoclonal antibody competes for binding hPG with a reference antibody selected from

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

b. a heavy variable domain sequence of SEQ ID NO:61 and a light chain variable domain sequence of SEQ ID NO:65; and

c. 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 monoclonal antibody is a C-terminal anti-hPG monoclonal antibody.

9. The use of claim 8 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).

10. The use of claim 8 wherein the C-terminal anti hPG monoclonal 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 V_H CDR 1.8 (SEQ ID NO:37), CDR2 comprises the amino acid sequence of V_H CDR 2.8 (SEQ ID NO:41), and CDR3 comprises the amino acid sequence of V_H CDR 3.8 (SEQ ID NO:45), and a light chain variable region in which CDR1 comprises the amino acid sequence of V_L CDR 1.8 (SEQ ID NO:49), CDR2 comprises the amino acid sequence of V_L CDR 2.8 (SEQ ID NO:52), and CDR3 comprises the amino acid sequence of V_L CDR 3.8 (SEQ ID NO:55); or

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

12. The use of claim 8 in which 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 claim 1, wherein the subject has a mutation in the APC gene associated with adenomatous polyposis.

14. The use of claim 1, wherein the subject has familial adenomatous polyposis.

15. The use of claim 1, wherein the subject has sporadic adenomatous polyposis.

16. The use of claim 1, in which the anti-hPG monoclonal antibody is administered adjunctive to surgical resection of tissue comprising adenomatous polyps.

17. The use of claim 1, in which the anti-hPG monoclonal antibody is administered adjunctive to chemotherapy.

18. The use of claim 1, in which the anti-hPG monoclonal antibody is administered adjunctive to treatment with a non-steroidal anti-inflammatory drug.

19. A method of preventing gastrointestinal cancer in a human subject, comprising administering to the human subject predisposed to developing adenomatous polyps an amount of an anti-PG monoclonal antibody sufficient to provide a therapeutic benefit.

20. The method of claim 19 wherein the human subject has a mutation in the APC gene associated with adenomatous polyposis, familial adenomatous polyposis or sporadic adenomatous polyposis.