~~WHAT IS CLAIMED IS:~~

1. A method of treating pain and diarrhea associated with a d-IBS comprising administering to a patient in need of such treatment, an amount of a molecule that inhibits secretion of chloride ions from a cell (inhibitor molecule) effective to treat pain and diarrhea associated with d-IBS.
2. A method of treating abdominal discomfort and diarrhea associated with d-IBS comprising administering to a patient in need of such treatment, an amount of a molecule that inhibits secretion of chloride ions from a cell (inhibitor molecule) effective to treat abdominal discomfort and diarrhea associated with d-IBS.
3. A method of treating pain associated with d-IBS comprising administering to a patient in need of such treatment, an amount of a molecule that inhibits secretion of chloride ions from a cell (inhibitor molecule) effective to treat pain associated with d-IBS.
4. A method of treating abdominal discomfort associated with d-IBS comprising administering to a patient in need of such treatment, an amount of a molecule that inhibits secretion of chloride ions from a cell (inhibitor molecule) effective to treat abdominal discomfort associated with d-IBS.
5. The method of any one of claims 1 to 4, in which the inhibitor is an extract from *Croton* spp. or *Calophyllum* spp.
6. The method of any one of claims 1 to 4, in which the inhibitor is latex from *Croton* spp. or *Calophyllum* spp.
7. The method of any one of claims 1 to 4, in which the inhibitor is an inhibitor of CFTR function.

8. ~~The method of claim 7, in which the inhibitor of CFTR function is selected~~ from the group consisting of 2-thioxo-4-thiazolidinone compounds and 3-[(3-trifluoromethy)phenyl]-5-[(3-carboxyphenyl) methylene]-2-thioxo-4-thiazolidinone, tolbutamide, glibenclamide and fluorescein or a derivative thereof, diazoxide, lemakalim, minoxidil sulfate and analogs thereof; 8-bromo-cAMP, 8-(4-chlorophenylthio) (CPT)-cAMP and 8-bromo-cGMP, CPT-cGMP; verapamil, nifedipine, diltiazem, disulfonic stilbene compounds, diphenylamine-2-carboxylate (DPC) or 5-nitro-2(3-phenylpropylamino)benzoate (NPPB); anthracene-9-carboxylic acid (9-AC); 3-[(3-trifluoromethy)phenyl]-5-[(3-carboxyphenyl)methylene]-2-thioxo-4-thiazolidinone; *N*-(2-naphthalenyl)-[3,5-dibromo-2,4-dihydroxyphenyl)methylene]glycine hydrazide (GlyH-101) or derivatives thereof; malonic acid dihydrazides or derivatives thereof; loperamide; racecadotril; lidamidine hydrochloride; lonidamine; vanadate; bumetamide; pp2a; PP1; PP2B; bismuth subsalicylate; diphenoxylate hydrochloride; and sparteine.

9. The method of any one of claims 1 to 4, in which the inhibitor is a synthetic or naturally-occurring polymer composition.

10. The method of claim 9, in which the polymer composition comprises at least one monomer selected from the group consisting of catechin, epicatechin, gallocatechin and epigallocatechin.

11. The method of any one of claims 1 to 4, in which the inhibitor is a proanthocyanidin polymer composition.

12. The method of claim 11, in which the polymer composition is isolated from a *Croton* species or a *Calophyllum* species.

~~13. The method of any one of claims 1 to 4, in which the inhibitor is crofelemer.~~

14. The method of claim 13, in which crofelemer enteric coated and is orally administered in an amount of between about 50 mg per day and about 750 mg per day.

15. The method of claim 14, in which crofelemer is administered in an amount of about 250 mg per day.

16. The method of any one of claims 1 to 4, in which pain- or discomfort-free days increased by at least 10%.

17. The method of any one of claims 1 to 4, in which the inhibitor is not systemically absorbed.

18. A method of treating diarrhea associated with d-IBS comprising administering to a patient in need of such treatment, an amount of a molecule that inhibits secretion of chloride ions from a cell (inhibitor molecule) effective to treat the diarrhea associated with d-IBS, with the proviso that the inhibitor molecule is not a polymeric proanthocyanidin composition isolated from *Croton* spp. or *Calophyllum* spp. or that the inhibitor molecule is not crofelemer.

19. A method of treating abnormal stool frequency, abnormal stool consistency or presence of urgency associated with d-IBS comprising administering to a patient in need of such treatment, an amount of a molecule that inhibits secretion of chloride ions from a cell (inhibitor molecule) effective to treat the abnormal stool frequency, abnormal stool consistency or presence of urgency associated with d-IBS, with the proviso that the inhibitor molecule is not a polymeric proanthocyanidin composition isolated from *Croton* spp. or *Calophyllum* spp. or that the inhibitor molecule is not crofelemer.

20. ~~The method of claim 18 or 19, in which the method further comprises~~ administering an analgesic agent or an anti-inflammatory agent.

21. The method of any one of claims 18 to 20, in which the inhibitor is a small molecule inhibitor of CFTR.

22. The method of any one of claims 18 to 20, in which the inhibitor is an isolated naturally occurring inhibitor of CFTR, or a synthetic or semisynthetic form of a naturally occurring inhibitor of CFTR.

23. The method of claim 21, in which the small molecule inhibitor of CFTR is selected from the group consisting of: 2-thioxo-4-thiazolidinone compounds and 3-[(3-trifluoromethy)phenyl]-5-[(3-carboxyphenyl) methylene]-2-thioxo-4-thiazolidinone, tolbutamide, glibenclamide and fluorescein or a derivative thereof, diazoxide, lemakalim, minoxidil sulfate and analogs thereof; 8-bromo-cAMP, 8-(4-chlorophenylthio)(CPT)-cAMP and 8-bromo-cGMP, CPT-cGMP; verapamil, nifedipine, diltiazem, disulfonic stilbene compounds, diphenylamine-2-carboxylate (DPC) or 5-nitro-2(3-phenylpropylamine)benzoate (NPPB); anthracene-9-carboxylic acid (9-AC); 3-[(3-trifluoromethy)phenyl]-5-[(3,5-carboxyphenyl)methylene]-2-thioxo-4-thiazolidinene; *N*-(2-naphthalenyl)-[(3,5-dibromo-2,4-dihydroxyphenyl)methylene]glycinehydrazide (GlyH-101) or derivatives thereof; malonic acid dihydrazides or derivatives thereof; loperamide; racecadotril; lidamidine hydrochloride; lonidamine; vanadate; bumetanide; pp2a; PP1; PP2B; bismuth subsalicylate; diphenoxylate hydrochloride; and sparteine.

24. The method of claim 22, in which the inhibitor is selected from arachidonic acid; linoleic acid; oleic acid, elaidic acid, palmitic acid, myristic acid,

lysophosphatidic acid, and niflumic acid; flavonoids, flavonols, polyphenols, proanthocyanidins, oligomeric proanthocyanidins, (OPCs), procyanidolic oligomers(PCOs), condensed tannins, leukocynanidins, anthocyanidins, procyanidins, cyanidins, prodelphinidins, delphinidin, catechins, epicatechins, gallocatechins, epigallocatechins, epigallocatechin gallate, epicatechin gallate, catechin gallate, gallocatechin gallate, quercetin, sesquiterpenes, diterpenes, terpenes, and terpenoid derivatives, tannins, alkaloids, saponins, morin, and luteolin.

25. A method of treating diarrhea associated with d-IBS comprising orally administering to a patient in need of such treatment, an amount of enterically-protected crofelemer (CAS 148465-45-6) effective to treat the diarrhea associated with d-IBS, in which said amount is between about 50 mg per day and about 750 mg per day.

26. A method of treating abnormal stool frequency, abnormal stool consistency or presence of urgency associated with d-IBS comprising orally administering to a patient in need of such treatment, an amount of enterically-protected crofelemer effective to treat the abnormal stool frequency, abnormal stool consistency or presence of urgency associated with d-IBS, in which said amount is between about 50 mg per day and about 750 mg per day.

27. A method of treating diarrhea associated with d-IBS comprising orally administering to a patient in need of such treatment, an amount of crofelemer (CAS 148465-45-6) effective to treat the diarrhea associated with d-IBS, in which the crofelemer is formulated to be protected from the stomach in a formulation other than enteric coated, said amount bioequivalent to enteric-

coated crofelemer at a dosage of about 50 mg per day to about 750 mg per day.

28. A method of treating abnormal stool frequency, abnormal stool consistency or presence of urgency associated with d-IBS comprising orally administering to a patient in need of such treatment, an amount of crofelemer effective to treat the abnormal stool frequency, abnormal stool consistency or presence of urgency associated with d-IBS, in which the crofelemer is formulated to be protected from the stomach in a formulation other than enteric-coated, said amount bioequivalent to enteric-coated crofelemer at a dosage of about 50 mg per day to about 750 mg per day.

29. A method of treating diarrhea associated with d-IBS comprising administering to a patient in need of such treatment, an amount of a polymeric proanthocyanidin composition isolated from *Croton* spp. or *Calophyllum* spp. effective to treat the diarrhea associated with d-IBS, in which said amount is bioequivalent to an orally administered dose of about 50 mg per day to about 750 mg per day of crofelemer.

30. A method of treating abnormal stool frequency, abnormal stool consistency or presence of urgency associated with d-IBS comprising administering to a patient in need of such treatment, an amount of a polymeric proanthocyanidin composition isolated from *Croton* spp. or *Calophyllum* spp. effective to treat the abnormal stool frequency, abnormal stool consistency or presence of urgency associated with d-IBS, in which said amount is bioequivalent to an orally administered dose of about 50 mg per day to about 750 mg per day of crofelemer.

~~31. The method of any one of claims 1-4, 18, 19 or 25-30, in which the patient is a~~ human female.

WHAT IS CLAIMED IS:

1. Use of crofelemer in the manufacture of a medicament for the treatment of pain associated with d-IBS, or abdominal discomfort associated with d-IBS, wherein said crofelemer is formulated for administration at a dosage of 50 mg per day to 750 mg per day.

2. The use of claim 1, in which the crofelemer is an extract from a *Croton* spp. or a *Calophyllum* spp.

3. The use of anyone of claims 1 to 2, in which the crofelemer is enteric-coated crofelemer.

4. The use of claim 3, wherein the crofelemer is formulated for oral administration in an amount of between 50 mg per day and 750 mg per day.

5. The use of claim 4, wherein the crofelemer is formulated for administration in an amount of 250 mg per day.

6. The use of claim 4, wherein the crofelemer is formulated for administration at 125 mg twice per day.

7. The use of claim 1, wherein pain or discomfort-free days are increased by at least 10% after administration of the crofelemer.

8. The use of anyone of claims 1 to 7, in which the crofelemer is not systemically absorbed.

9. Use of an amount of enterically-protected crofelemer (CAS 148465-45-6) in the manufacture of a medicament for the treatment of pain or abdominal discomfort associated with d-IBS, in which the amount is be- tween 50 mg per day and 750 mg per day and the medicament is formulated for oral administration.

10. The use of claim 9, wherein the amount of crofelemer is 250 mg per day.

11. The use of claim 9, wherein the crofelemer is formulated for administration at 125 mg twice per day.

12. The use of claim 9, wherein pain or discomfort-free days are increased by at least 10% after administration of the crofelemer.

13. The use of claim 9, wherein the crofelemer is not systemically absorbed.

14. The use of claim 1 or 9, in which the medicament is for treatment of a human female.