

7. The method of claim 1, wherein the mammal is a human.

8. A non-invasive method of diagnosing or monitoring bladder cancer in a human subject comprising:

(a) securing a urine sample from the human subject and from a control population of humans with no history of bladder cancer; and then

(b) determining the presence and concentration in the urine sample from the human subject and from the control population of humans of a urine-soluble protein selected from the group consisting of neurotrophin-3, glial cell line-derived neurotrophic factor, tryptase, and combinations thereof; and then comparing the concentrations from the human subject with corresponding concentrations from the control population, wherein elevated levels of neurotrophin-3, glial cell line-derived neurotrophic factor, or tryptase in the human subject as compared to the control population is indicative of bladder cancer in the human subject.

9. The method of claim 8, wherein in step (b) the presence and concentration of the urine-soluble protein is determined using an enzyme-linked immunosorbent assay.

10. The method of claim 9, wherein in step (b) the presence and concentration of neurotrophin-3 is determined.

11. The method of claim 9, wherein in step (b) the presence and concentration of glial cell line-derived neurotrophic factor is determined.

12. The method of claim 9, wherein in step (b) the presence and concentration of tryptase is determined.

13. The method of claim 9, wherein in step (b) the presence and concentration of neurotrophin-3, glial cell line-derived neurotrophic factor, or tryptase is determined using corresponding double antibody-sandwich enzyme-linked immunosorbent assays specific for neurotrophin-3, glial cell line-derived neurotrophic factor, or tryptase.

14. A method of diagnosing or monitoring bladder cancer in a human subject comprising:

(a) securing a urine sample from the human subject and from a control population of humans with no history of bladder cancer; and then

(b) acidifying the urine samples from the human subject and from the control population to a pH of about 3.0 or less and then neutralizing the urine samples; and then

(c) determining concentration in the urine samples from the human subject and from the control population of a urine-soluble protein selected from the group consisting of neurotrophin-3, glial cell line-derived neurotrophic factor, tryptase, and combinations thereof using a corresponding double antibody-sandwich enzyme-linked immunosorbent assay specific for the urine-soluble protein being analyzed; and then comparing the concentrations from the human subject with corresponding concentrations from the control population, wherein elevated levels of neurotrophin-3, glial cell line-derived neurotrophic factor, or tryptase in the human subject as compared to the control population is indicative of bladder cancer in the human subject.

15. A method of diagnosing or monitoring interstitial cystitis in a mammal comprising determining concentration of a urine-soluble protein selected from the group consisting of neurotrophin-3, glial cell line-derived neurotrophic factor, and combinations thereof in urine from the mammal and from a control population of mammals with no history of interstitial cystitis; and then comparing the concentrations from the mammal with corresponding concentrations from

the control population, wherein elevated levels of neurotrophin-3 or glial cell line-derived neurotrophic factor in the mammal as compared to the control population is indicative of interstitial cystitis in the mammal.

16. The method of claim 15, wherein the concentration of the urine-soluble protein is analyzed using an enzyme-linked immunosorbent assay.

17. The method of claim 16, wherein the concentration of neurotrophin-3 is analyzed.

18. The method of claim 16, wherein the concentration of glial cell line-derived neurotrophic factor is analyzed.

19. The method of claim 16, wherein the concentration of neurotrophin-3 and glial cell line-derived neurotrophic factor is analyzed.

20. A non-invasive method of diagnosing or monitoring interstitial cystitis in a human subject comprising:

(a) securing a urine sample from the human subject and from a control population of humans with no history of interstitial cystitis; and then

(b) determining the presence and concentration in the urine sample from the human subject and from the control population of humans of a urine-soluble protein selected from the group consisting of neurotrophin-3, glial cell line-derived neurotrophic factor, and combinations thereof; and then comparing the concentrations from the human subject with corresponding concentrations from the control population, wherein elevated levels of neurotrophin-3 or glial cell line-derived neurotrophic factor in the human subject as compared to the control population is indicative of interstitial cystitis or bladder cancer in the human subject.

21. The method of claim 20, wherein the concentration of the urine-soluble protein is analyzed using an enzyme-linked immunosorbent assay.

22. The method of claim 21, wherein the concentration of neurotrophin-3 is analyzed.

23. The method of claim 21, wherein the concentration of glial cell line-derived neurotrophic factor is analyzed.

24. The method of claim 21, wherein the concentration of neurotrophin-3 and glial cell line-derived neurotrophic factor is analyzed.

25. A method of diagnosing or monitoring interstitial cystitis in a human subject comprising:

(a) securing a urine sample from the human subject and from a control population of humans with no history of interstitial cystitis; and then

(b) acidifying the urine samples from the human subject and from the control population to a pH of about 3.0 or less and then neutralizing the urine samples; and then

(c) determining concentration in the urine samples from the human subject and from the control population of a urine-soluble protein selected from the group consisting of neurotrophin-3, glial cell line-derived neurotrophic factor, and combinations thereof using a corresponding double antibody-sandwich enzyme-linked immunosorbent assay specific for the urine-soluble protein being analyzed; and then comparing the concentrations from the human subject with corresponding concentrations from the control population, wherein elevated levels of neurotrophin-3 or glial cell line-derived neurotrophic factor in the human subject as compared to the control population is indicative of interstitial cystitis in the human subject.