CLAIMS

1. An *in vitro* method for diagnosing that an individual does or does not have lung cancer, the method comprising:

providing a biomarker panel comprising biomarker proteins MMP-12 and C9; and

detecting the biomarker proteins in a biological sample from an individual to give biomarker values that each corresponds to one of the biomarker proteins in the panel, wherein said individual is classified as having or not having lung cancer based on said biomarker values.

2. A computer-implemented method for indicating a likelihood that an individual does or does not have lung cancer, the method comprising:

providing a biomarker panel comprising biomarker proteins MMP-12 and C9;

retrieving on a computer biomarker information for an individual, wherein the biomarker information comprises biomarker values that each corresponds to one of the biomarker proteins in the panel;

performing with the computer a classification of each said biomarker values; and

indicating a likelihood that said individual has lung cancer based upon a plurality of classifications.

3. An *in vitro* method for diagnosing that an individual does or does not have lung cancer, the method comprising:

providing a biomarker panel comprising biomarker proteins MMP- 12 and C9; and

detecting biomarker proteins, in a biological sample from an individual, to give biomarker values that each corresponds to one of the biomarker proteins in the panel, wherein the likelihood of said individual having lung cancer is determined based on said biomarker values.

4. The method of claim 2, wherein indicating the likelihood that the individual has lung cancer comprises displaying the likelihood on a computer display.

5. An *in vitro* method for determining information about lung cancer in an individual comprising:

providing a biomarker panel comprising biomarker proteins MMP-12 and C9; and

detecting biomarker proteins, in a biological sample from an individual, to give biomarker values that each corresponds to one of the biomarker proteins in the panel, wherein said individual is classified as having or not having lung cancer based on said biomarker values.

6. An *in vitro* method for determining information about lung cancer in an individual comprising:

providing a biomarker panel comprising biomarker proteins MMP-12 and C9; and

detecting biomarker proteins, in a biological sample from an individual, to give biomarker values that each corresponds to one of the biomarker proteins in the panel; and wherein said biomarker value provides information about the lung cancer in the individual.

7. The method of any of claims 1, 3 or 5 - 6, wherein detecting the biomarker values comprises performing an *in vitro* assay.

8. The method of claim 7, wherein said *in vitro* assay comprises at least one capture reagent corresponding to each of said biomarkers, and further comprising selecting said at least one capture reagent from the group consisting of aptamers, antibodies, and a nucleic acid probe.

9. The method of claim 8, wherein said at least one capture reagent is an aptamer.

10. The method of claim 7, wherein the *in vitro* assay is selected from the group consisting of an immunoassay, an aptamer-based assay, a histological or cytological assay, and an mRNA expression level assay.

11. The method of any of claims 1, 3 or 5- 6, wherein each biomarker value is evaluated based on a predetermined value or a predetermined range of values.

12. The method of any of claims 1, 3 or 5- 6, wherein the biological sample is lung tissue and wherein the biomarker values derive from a histological or cytological analysis of said lung tissue.

13. The method of any of claims 1, 3 or 5- 6, wherein the biological sample is selected from the group consisting of whole blood, plasma, and serum.

14. The method of claim 13, wherein the biological sample is serum.

15. The method of any of claims 1, 3 or 5- 6, wherein the individual is a human.

16 The method of any of claims 1, 3 or 5- 6, wherein the individual is a smoker.

17. The method of any of claims 1, 3 or 5- 6, wherein the individual has a pulmonary nodule.

18. The method of any of claims 1, 3 or 5- 6, wherein the lung cancer is non-small cell lung cancer.

19 The method of claim 5 or 6, wherein the information comprises prognosis, cancer classification, prediction of disease risk, or selection of treatment.