The invention claimed is:

1. A system, comprising:

at least one computer hardware processor;

at least one database that stores biomarker information; and

at least one non-transitory computer-readable storage medium storing processor-executable instructions that, when executed by the at least one computer hardware processor, cause the at least one computer hardware processor to perform:

obtaining sequencing data about at least one biological sample of a subject known to have or suspected of having cancerous cells or pre-cancerous cells;

accessing, in the at least one database, biomarker information indicating a distribution of values for each biomarker in at least a reference subset of a plurality of biomarkers across a respective group of people, each of the plurality of biomarkers being associated with at least one therapy in a plurality of therapies, the plurality of biomarkers including a first biomarker and the biomarker information including a first distribution of values for the first biomarker;

determining, using both the sequencing data and the biomarker information:

a first set of normalized scores for a first set of biomarkers associated with a first therapy in the plurality of therapies, and

a second set of normalized scores for a second set of biomarkers associated with a second therapy in the plurality of therapies,

wherein determining the first set of normalized scores comprises determining a first normalized score for the first biomarker at least in part by determining a statistical score for the first biomarker based on the first distribution of values for the first biomarker;

determining, using the first set of normalized scores and second set of normalized scores, respective first and second therapy scores for the first and second therapies;

generating a graphical user interface (GUI) that comprises:

a first portion associated with the first therapy in the plurality of therapies, the first portion including a first plurality of GUI elements, each of the first plurality of GUI elements being associated with a respective biomarker in the first set of biomarkers and having at least one visual characteristic determined based on a normalized score of the respective biomarker in the first set of normalized scores;

a second portion associated with the second therapy in the plurality of therapies, the second portion including a second plurality of GUI elements different from the first plurality of GUI elements, each of the second plurality of GUI elements being associated

with a respective biomarker in the second set of biomarkers and having at least one visual characteristic determined based on a normalized score of the respective biomarker in the second set of normalized scores; and

displaying the generated GUI.

2. The system of claim 1, wherein the processor-executable instructions further cause the at least one processor to perform:

determining, using both the sequencing data and the biomarker information, a third set of normalized scores for a third set of biomarkers associated with a third therapy in the plurality of therapies.

3. The system of claim 2, wherein the GUI further comprises:

a third portion associated with the third therapy in the plurality of therapies, the third portion including a third plurality of GUI elements, each of the third plurality of GUI elements being associated with a respective biomarker in the third set of biomarkers and having at least one visual characteristic determined based on a normalized score of the respective biomarker in the third set of normalized scores.

4. The system of claim 1, wherein determining the first and second therapy scores for the first and second therapies is performed using a statistical model.

5. The system of claim 4, wherein the statistical model comprises a linear model, a generalized linear model, a neural network model, a Bayesian regression model, an adaptive non-linear regression model, a mixture model, and/or a random forest regression model.

6. The system of claim 1, wherein determining the statistical score for the first biomarker comprises determining a Z-score based on the first distribution of values for the first biomarker.

7. The system of claim 6, wherein determining the first normalized score for the first biomarker comprises:

determining an un-normalized score for the first biomarker using the sequencing data, and

determining a normalized score for the first biomarker based on the un-normalized score and the Z-score.

8. The system of claim 1, wherein determining the first therapy score comprises:

determining weights for two or more scores in the first set of normalized scores; and

determining the first therapy score as a weighted sum of the two or more scores with summands of the sum being weighted by the determined weights.

9. The system of claim 1, wherein the plurality of therapies comprise at least two therapies selected from the group consisting of: an anti-PD1 therapy, an anti-CTLA4 therapy, an IL-2 therapy, an IFN alpha therapy, an anti-cancer vaccine therapy, an anti-angiogenic therapy, and an anti-CD20 therapy.

10. The system of claim 1, wherein the at least one visual characteristic comprises color of a GUI element and/or size of the GUI element.

11. The system of claim 1, wherein the first portion and the second portion are positioned, relative to one another in the GUI, based on relative magnitude of the first therapy score and the second therapy score.

12. The system of 1, wherein each of the plurality of biomarkers is selected from the group consisting of: a genetic biomarker, a cellular biomarker, a saccharide biomarker, a lipid biomarker, a heterocyclic biomarker, an elementary compound biomarker, an imaging biomarker, an anthropological biomarker, a personal habit biomarker, a disease-state biomarker, and an expression biomarker.

13. The system of claim 1, wherein each of the plurality of biomarkers is selected from the group consisting of biomarkers listed in Table 2.

14. At least one non-transitory computer-readable storage medium storing processor-executable instructions that, when executed by the at least one computer hardware processor, cause the at least one computer hardware processor to perform:

obtaining sequencing data about at least one biological sample of a subject known to have or suspected of having cancerous cells or pre-cancerous cells;

accessing, in at least one database, biomarker information indicating a distribution of values for each biomarker in at least a reference subset of a plurality of biomarkers across a respective group of people, each of the plurality of biomarkers being associated with at least one therapy in a plurality of therapies, the plurality of biomarkers including a first biomarker and the biomarker information including a distribution of values for the first biomarker;

determining, using both the sequencing data and the biomarker information:

a first set of normalized scores for a first set of biomarkers associated with a first therapy in the plurality of therapies, and

a second set of normalized scores for a second set of biomarkers associated with a second therapy in the plurality of therapies,

wherein determining the first set of normalized scores comprises determining a first normalized score for the first biomarker at least in part by determining a statistical score for the first biomarker based on the first distribution of values for the first biomarker;

determining, using the first set of normalized scores and second set of normalized scores, respective first and second therapy scores for the first and second therapies;

generating a graphical user interface (GUI) that comprises:

a first portion associated with the first therapy in the plurality of therapies, the first portion including a first plurality of GUI elements, each of the first plurality of GUI elements being associated with a respective biomarker in the first set of biomarkers and having at least one visual characteristic determined based on a normalized score of the respective biomarker in the first set of normalized scores;

a second portion associated with the second therapy in the plurality of therapies, the second portion including a second plurality of GUI elements different from the first plurality of GUI elements, each of the second plurality of GUI elements being associated with a respective biomarker in the second set of biomarkers and having at least one visual characteristic determined based on a normalized score of the respective biomarker in the second set of normalized scores; and

displaying the generated GUI.

15. The at least one non-transitory computer-readable storage medium of claim 14, wherein determining the first and second therapy scores for the first and second therapies is performed using a statistical model.

16. The at least one non-transitory computer-readable storage medium of claim 14,

wherein determining the statistical score for the first biomarker comprises determining a Z-score based on the first distribution of values for the first biomarker.

17. The at least one non-transitory computer-readable storage medium of claim 16, wherein determining the first normalized score for the first biomarker comprises:

determining an un-normalized score for the first biomarker using the sequencing data, and

determining a normalized score for the first biomarker based on the un-normalized score and the Z-score.

18. The at least one non-transitory computer-readable storage medium of claim 14, wherein the plurality of therapies comprise at least two therapies selected from the group consisting of: an anti-PD1 therapy, an anti-CTLA4 therapy, an IL-2 therapy, an IFN alpha therapy, an anti-cancer vaccine therapy, an anti-angiogenic therapy, and an anti-CD20 therapy.

19. The at least one non-transitory computer-readable storage medium of claim 14, wherein the at least one visual characteristic comprises color of a GUI element and/or size of the GUI element.

20. The at least one non-transitory computer-readable storage medium of claim 14, wherein the first portion and the second portion are positioned, relative to one another in the GUI, based on relative magnitude of the first therapy score and the second therapy score.

21. The at least one non-transitory computer-readable storage medium of claim 14, wherein each of the plurality of biomarkers is selected from the group consisting of biomarkers listed in Table 2.

22. The at least one non-transitory computer-readable storage medium of claim 14, wherein each of the plurality of biomarkers is selected from the group consisting of: a genetic biomarker, a cellular biomarker, a saccharide biomarker, a lipid biomarker, a heterocyclic biomarker, an elementary compound biomarker, an imaging biomarker, an anthropological biomarker, a personal habit biomarker, a disease-state biomarker, and an expression biomarker.

23. A method, comprising:

obtaining sequencing data about at least one biological sample of a subject known to have or suspected of having cancerous cells or pre-cancerous cells;

accessing, in at least one database, biomarker information indicating a distribution of values for each biomarker in at least a reference subset of a plurality of biomarkers across a respective group of people, each of the plurality of biomarkers being associated with at least one therapy in a plurality of therapies, the plurality of biomarkers including a first biomarker and the biomarker information including a distribution of values for the first biomarker;

determining, using both the sequencing data and the biomarker information:

a first set of normalized scores for a first set of biomarkers associated with a first therapy in the plurality of therapies, and

a second set of normalized scores for a second set of biomarkers associated with a second therapy in the plurality of therapies,

wherein determining the first set of normalized scores comprises determining a first normalized score for the first biomarker at least in part by determining a statistical score for the first biomarker based on the first distribution of values for the first biomarker;

determining, using the first set of normalized scores and second set of normalized scores, respective first and second therapy scores for the first and second therapies;

generating a graphical user interface (GUI) that comprises:

a first portion associated with the first therapy in the plurality of therapies, the first portion including a first plurality of GUI elements, each of the first plurality of GUI elements being associated with a respective biomarker in the first set of biomarkers and having at least one visual characteristic determined based on a normalized score of the respective biomarker in the first set of normalized scores;

a second portion associated with the second therapy in the plurality of therapies, the second portion including a second plurality of GUI elements different from the first plurality of GUI elements, each of the second plurality of GUI elements being associated with a respective biomarker in the second set of biomarkers and having at least one visual characteristic determined based on a normalized score of the respective biomarker in the second set of normalized scores; and

displaying the generated GUI.

24. The method of claim 23, wherein determining the first and second therapy scores for

the first and second therapies is performed using a statistical model.

25. The method of claim 23, wherein determining the statistical score for the first biomarker comprises determining a Z-score based on the first distribution of values for the first biomarker.

26. The method of claim 25, wherein determining the first normalized score for the first biomarker comprises:

determining an un-normalized score for the first biomarker using the sequencing data, and

determining a normalized score for the first biomarker based on the un-normalized score and the Z-score.

27. The method of claim 23, wherein the plurality of therapies comprise at least two therapies selected from the group consisting of: an anti-PD1 therapy, an anti-CTLA4 therapy, an IL-2 therapy, an IFN alpha therapy, an anti-cancer vaccine therapy, an anti-angiogenic therapy, and an anti-CD20 therapy.

28. The method of claim 23, wherein the at least one visual characteristic comprises color of a GUI element and/or size of the GUI element.

29. The method of claim 23, wherein the first portion and the second portion are positioned, relative to one another in the GUI, based on relative magnitude of the first therapy score and the second therapy score.

30. The method of claim 23, wherein each of the plurality of biomarkers is selected from the group consisting of biomarkers listed in Table 2.