

-continued

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What is claimed is:

1. An array for detecting at least one target in a sample, the array comprising:

at least one capture agent or component thereof attached to a substrate, the at least one capture agent capable of specifically binding the at least one target to form a capture agent target binding complex,

the at least one capture agent or component thereof arranged on the array so that capture agent target binding complexes are detectable along substantially parallel lines forming a barcoded pattern.

2. The array of claim 1, wherein the at least one target is a plurality of targets, and the at least one capture agent or component thereof is a plurality of capture agents or components thereof, each capture agent of the plurality of capture agents bindingly distinguishable and positionally distinguishable from another, each capture agent of the plurality of capture agents capable of specifically binding each target of the plurality of targets to form a capture agent target binding complex.

3. The array of claim 2, wherein the plurality of targets comprises a plurality of biomarkers.

4. The array of claim 3, wherein the barcoded pattern is associated with a biological profile.

5. The array of claim 4, wherein the biological profile provides a diagnostic indication upon comparison with a predetermined biological profile associated with a disease.

6. The array of claim 1, wherein said substantially parallel lines are formed by microfluidic channels or portions thereof, the microfluidic channels being microfluidic channels of the array.

7. The array of claim 2, wherein the plurality of capture agents or components thereof comprise:

a plurality of array polynucleotides attached to the array, each polynucleotide of the plurality of array polynucleotides attached to the array being sequence specific and positionally distinguishable from another.

8. The array of claim 7, wherein the plurality of capture agents or components thereof further comprise

a plurality of polynucleotide-encoded proteins, each polynucleotide-encoded protein comprising a protein and an encoding polynucleotide attached to the protein, wherein the protein specifically binds to a predetermined target of a plurality of targets and the encoding polynucleotide specifically binds to a sequence-specific and positionally distinguishable polynucleotide of the plurality of polynucleotides attached to the array, each protein and encoding polynucleotide being bindingly distinguishable from another.

9. A microfluidic device comprising the array of claim 1.