

[0006] One object of the present invention is to provide diagnostic methods that can facilitate the detection of a disease or condition-specific markers, e.g., nucleic acids, proteins, carbohydrates, and/or lipids and the like by using combinations of two or more different components selected from cell-free bodily fluids, phagocytic cells, circulating vesicles, and circulating diseased cells. Another object of this invention is to provide methods of identifying a disease or condition-specific markers and further use such markers alone or together with any known markers to diagnose diseases or conditions.

Summary of the Invention

[0007] Some aspects and/or embodiments of the invention ~~present disclosure~~ are:

1. A method for diagnosing or aiding in the diagnosis of a disease or condition in a subject comprising:

a) determining a first profile of one or more markers of the disease or condition from a sample comprising two or more different components selected from the group consisting of: a cell-free bodily fluid isolated from the subject, a population of phagocytic cells isolated from the subject, a population of phagocytic cells having a DNA content more than $2n$ ($>2n$ phagocytic cells) isolated from the subject, a population of circulating vesicles isolated from the subject, and a population of circulating diseased cells isolated from the subject;

b) determining a second profile of at least one of the one or more markers from a control comprising a component selected from the group consisting of: a population of phagocytic cells having a DNA content of $2n$ ($=2n$ phagocytic cells) isolated from the subject, a population of non-phagocytic cells. isolated from the subject, and a population of control cells isolated from the subject, wherein the control cells are substantially free of cells affected by the disease or condition; and

c) identifying a difference between the first and second profiles, wherein the difference is indicative of the presence of said disease or condition in the subject.

MBOAT2, MPZL3, N4BP1, NBEAL2, NMI, NPEPPS, PARP14, PGM2, PPIF, PXN, RALBP1, ROD1, RPS6KA1, S100P, SERTAD2, SLC9A1, SLPI, SP110, SPINT1, ST14, TBC1D3, TNFRSF9, TRIM21, UPP1, VPS24, ZBTB34, and ZNF256.

145. The method of any one of the embodiments 1-93 and 135-144, wherein the one or more markers comprise at least one or more of the markers identified by the methods of any one the embodiments 94-134.

146. A kit comprising a plurality of marker detection agents that detect at least one or more of the markers identified by the methods of any one of the embodiments 94-134.

~~147. Use of a compound identified by the method of any one of embodiments 6 and 15 for the manufacture of a medicament for the treatment or prevention of A method of treating or preventing a disease or condition in a subject comprising administering to said subject a composition comprising a compound identified by the method of any one of embodiments 6 and 15.~~

148. The method of any one of the embodiments 1-93 and 135-145, wherein the circulating diseased cells are infected by an infectious agent.

149. The method of embodiment 148, wherein the infectious agent is a virus, bacteria, fungus, parasite, protozoan, infectious protein or microorganism.

150. The method of any one of embodiments 1-93, 135-145, and 148-149, wherein, when said method comprises phagocytic cells or $>2n$ phagocytic cells, said phagocytic cells or $>2n$ phagocytic cells comprise a transrenal nucleic acid.

Brief Description of the Drawings

[0008] Figure 1 depicts a set of potentially informative markers and the relative percentage of reads of associated allelic frequencies in maternal reference samples of CD2-positive peripheral blood cells and combination samples. Along the x-axis are the markers and along the y-axis are the percent reads for the different alleles. Triangle: percent of maternal sample reference allele; circle: percent of maternal sample alternate allele; square: percent of combination sample reference allele; and diamond: percent of combination sample alternate allele.

145. The method of any one of the claims 1-93 and 135-144, wherein the one or more markers comprise at least one or more of the markers identified by the methods of any one of the claims 94-134.

146. A kit comprising a plurality of marker detection agents that detect at least one or more of the markers identified by the methods of any one of the claims 94-134.

147. Use of a compound identified by the method of any one of claims 6 and 15 for the manufacture of a medicament for the treatment or prevention of ~~A method of treating or preventing a disease or condition in a subject comprising administering to said subject a composition comprising a compound identified by the method of any one of claims 6 and 15.~~

148. The method of any one of the claims 1-93 and 135-145, wherein the circulating diseased cells are infected by an infectious agent.

149. The method of claim 148, wherein the infectious agent is a virus, bacteria, fungus, parasite, protozoan, infectious protein or microorganism.

150. The method of any one of claims 1-93, 135-145, and 148-149, wherein, when said method comprises phagocytic cells or $>2n$ phagocytic cells, said phagocytic cells or $>2n$ phagocytic cells comprise a transrenal nucleic acid.