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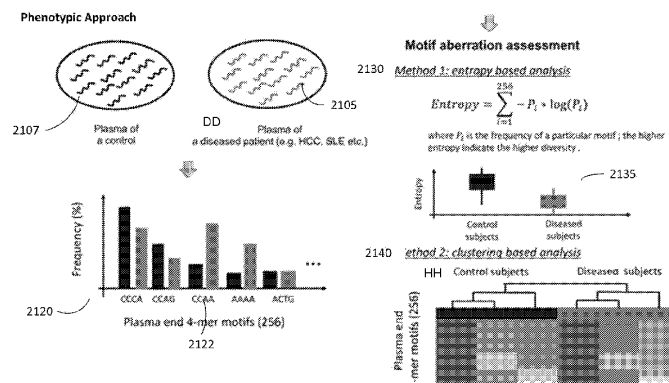
(54) **Title:** CELL-FREE DNA END CHARACTERISTICS

FIG. 21

(57) **Abstract:** The present disclosure describes techniques for measuring quantities (e.g., relative frequencies) of sequence end motifs of cell-free DNA fragments in a biological sample of an organism for measuring a property of the sample (e.g., fractional concentration of clinically-relevant DNA) and/or determining a condition of the organism based on such measurements. Different tissue types exhibit different patterns for the relative frequencies of the sequence end motifs. The present disclosure provides various uses for measures of the relative frequencies of sequence end motifs of cell-free DNA, e.g., in mixtures of cell-free DNA from various tissues. DNA from one of such tissue may be referred to as clinically-relevant DNA.

[Continued on next page]

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