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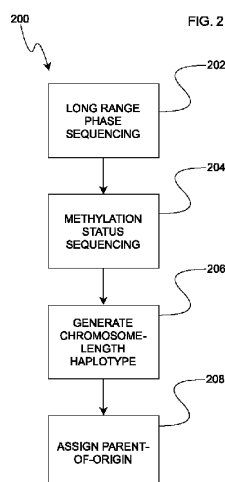
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(54) Title: METHOD AND APPARATUS FOR PARENT-OF-ORIGIN DISEASE ALLELE DETECTION FOR THE DIAGNOSIS AND MANAGEMENT OF GENETIC DISEASES



(57) Abstract: A method of assigning parent-of-origin to a haplotype, a sub-haplotype or an allele associated with a haplotype. Chromosome-length haplotypes of a genome are generated and a differential methylation status of at least one imprinted differentially methylated region (iDMR) associated with each one of the autosomal chromosomes is determined. The differential methylation status of the at least one iDMR is used to assign parent-of-origin for each one of the chromosome-length haplotypes.

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