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(54) **Title:** METHODS FOR MULTIMODAL EPIGENETIC SEQUENCING ASSAYS

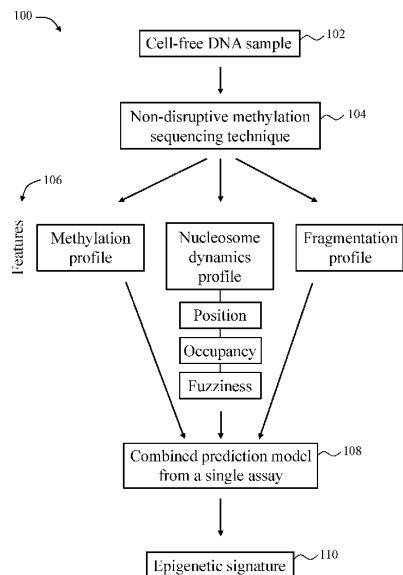


FIG. 1

(57) **Abstract:** Provided herein, in certain aspects, are methods involving epigenetic signatures comprising features from any of a methylation profile, a nucleosome dynamics profile, or a fragmentation profile, or any combination thereof. In other aspects, the present disclosure is directed to methods involving an epigenetic signature (such as methods of determining an epigenetic signature, methods of discovering an epigenetic signature, methods of diagnosis, and methods and treatment), and system, kits, and components useful therefor.

SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN,
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