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(54) Title: A CHICKEN METHYLATION CLOCK

(57) Abstract: The invention provides a method of establishing a chicken methylation clock comprising: (a) determining the methylation ratio and the read coverage of the genomic CpG sites of an age-correlated training sample of a specific chicken tissue; (b) defining a set of CpG sites having reliable methylation ratios in all training samples of step (a) using a cutoff value; and (c) performing a penalized regression using the methylation ratios of step (b) as input and the age correlated to the training sample as dependent variable, by applying a penalized regression model; thereby obtaining a set of CpG sites with corresponding weighting factors and intercept of the linear model equation as parameters defining the chicken methylation clock.

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