

EPIGENETICS OF NUTRITION IN AGEING

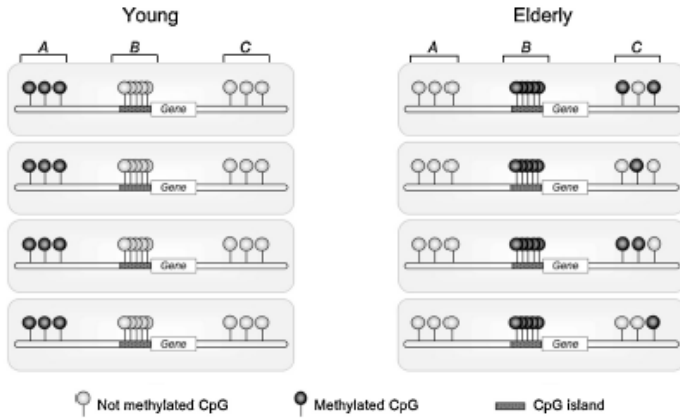


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Physical Activity and Nutrition Influences In ageing

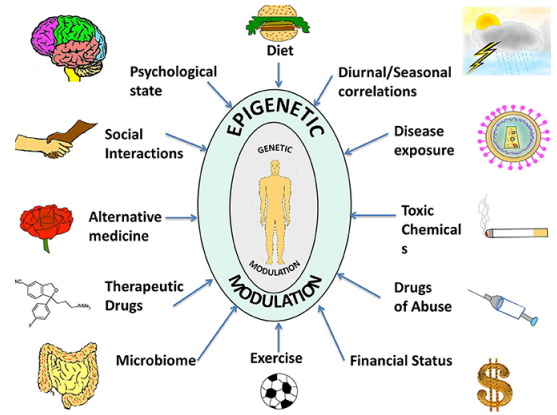
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Profound remodelling of human epigenome during ageing



Bacalini MG et al., Mechanisms of Ageing and Development, 2014

Influence of environmental factors

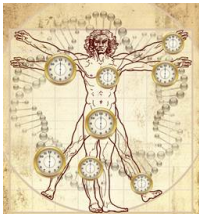


Aims of the project: Identify and validate specific CpG targets affected by diet and exercise

- **Identification** of specific CpG targets, looking through publicly available cohorts and available datasets
- Special care provided to the relation to pathologic conditions : **frailty** and **sarcopenia**
- **Validation** of targets in our datasets, with gene-targeted analysis of DNA methylation, thanks to Sequenom® MassARRAY EpiTYPER platform



- **Effects of nutritional and physical interventions**



- Set up of a **reduced version of Horvath's epigenetic clock** (Horvath S, Genome Biology, 2013) assessable with more quantitative methods
- **Rejuvenation** with nutritional and physical interventions ?

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