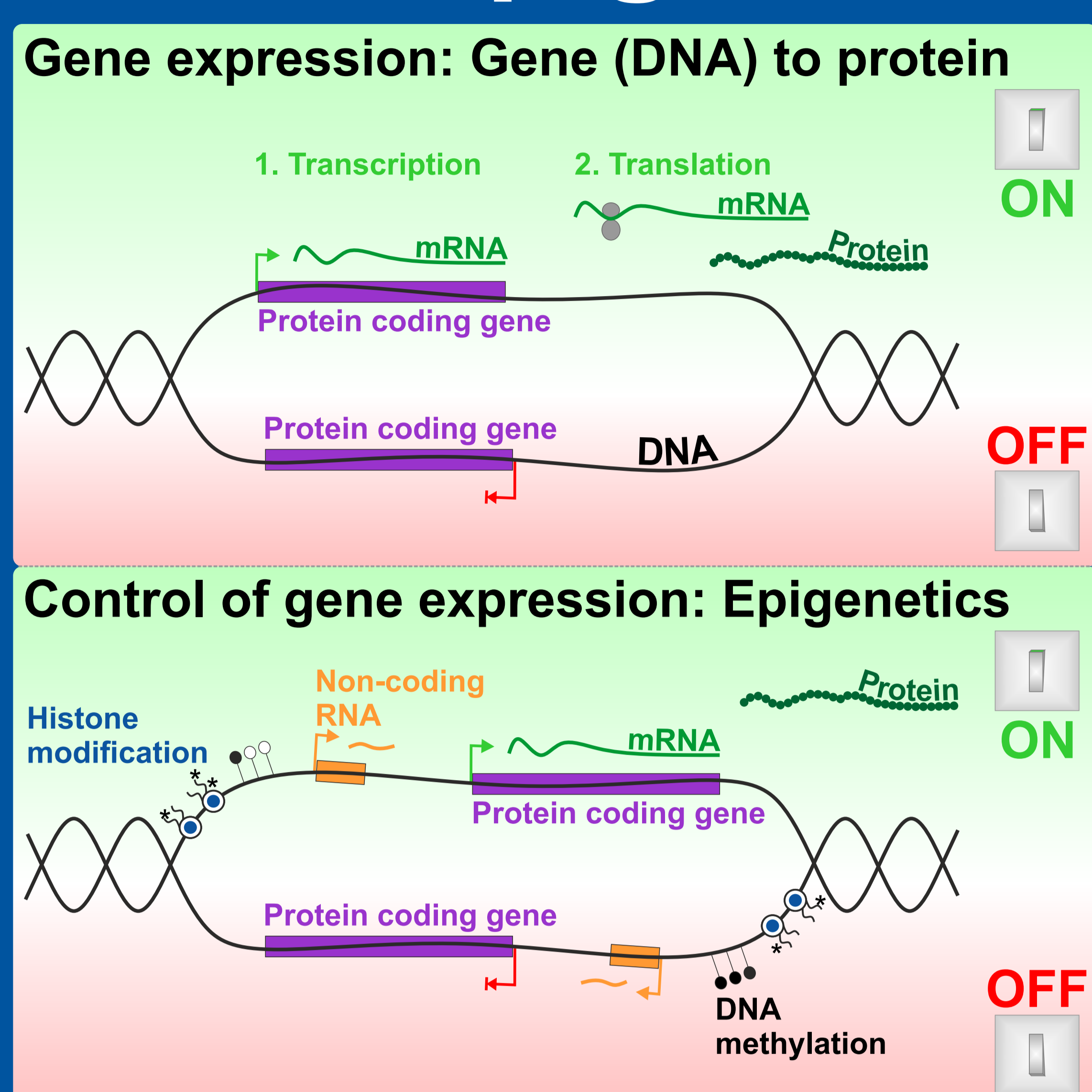


# Nature vs nurture: Epigenetics

## What is epigenetics?

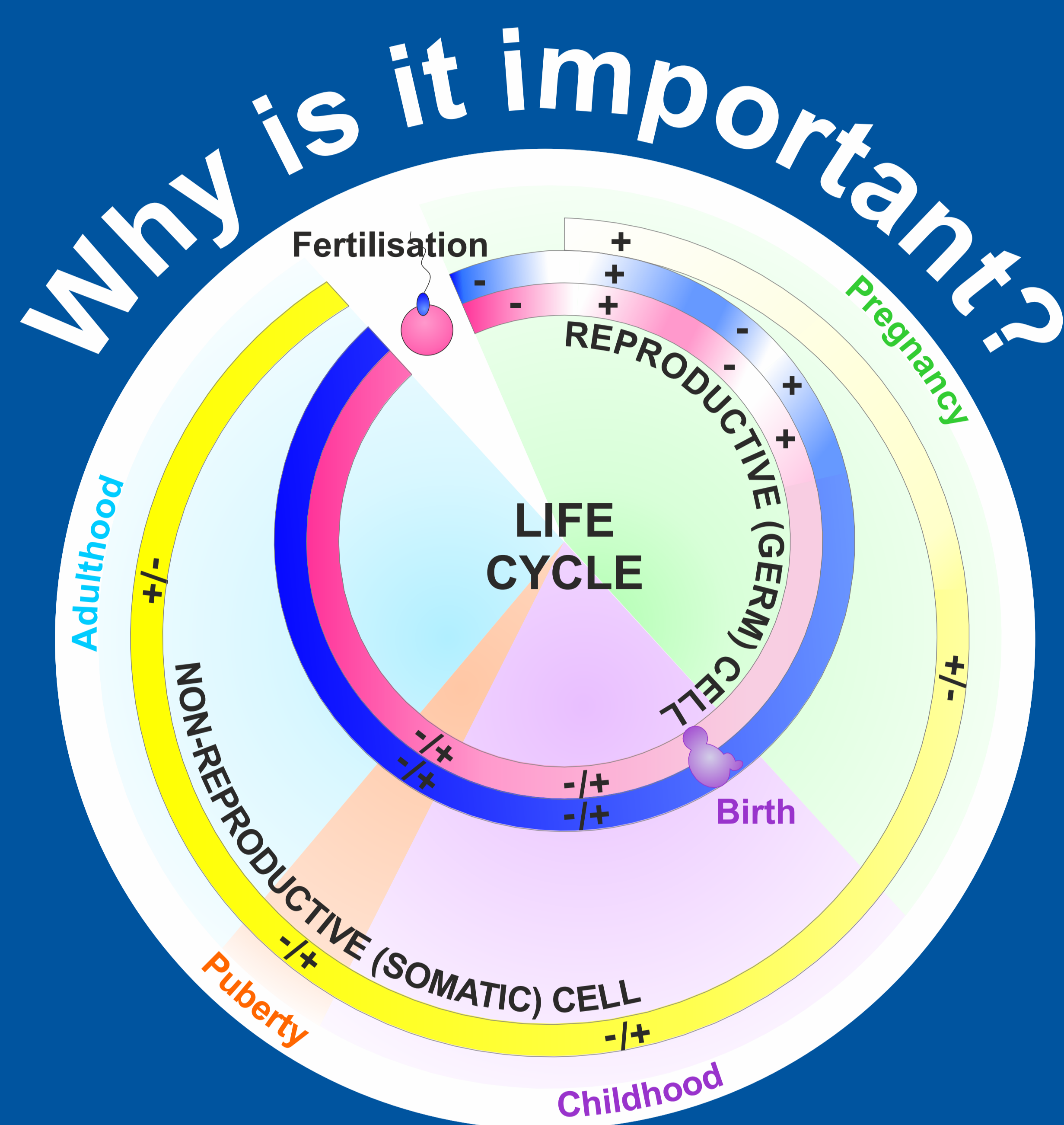


Epigenetic processes control whether a gene is switched on or off (without altering the underlying DNA sequence)

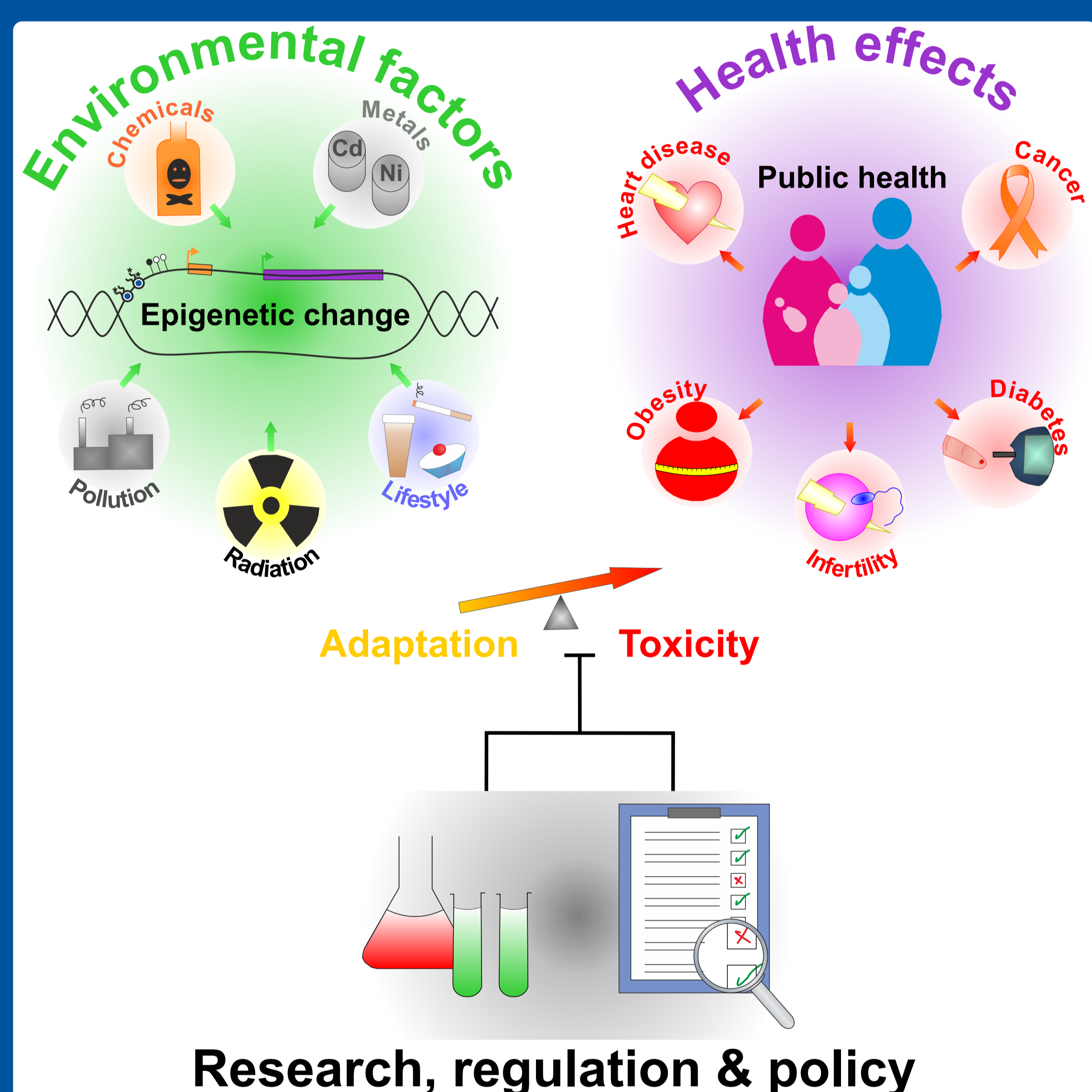
They include histone modification, DNA methylation & non-coding RNAs

Epigenetic processes enable a single fertilised egg to produce a whole new person

Removal (-) & re-establishment (+) of epigenetic marks drive key developmental stages, particularly during early life



## How can it be useful?



Some environmental factors are linked with adverse health effects (but do not cause DNA mutations)

Such links are likely to involve epigenetic processes

Development of epigenetic tools may therefore help to improve safety regulations & policies

Ensuring every child has the best start in life

