# GENE EATING

THE SCIENCE OF OBESITY
AND THE TRUTH ABOUT DIETING

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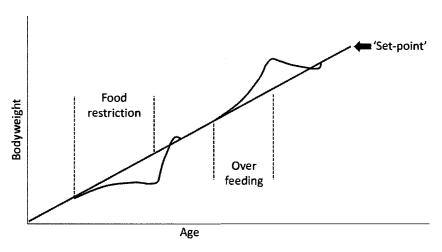
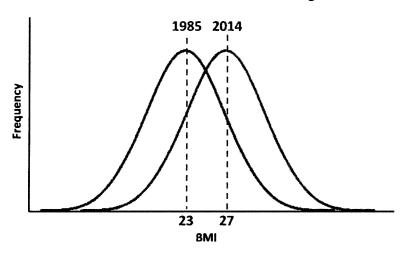


FIGURE 1 The 'set-point'

### If environment was the ONLY reason for increasing BMI



#### Actual data indicates differences in response to the environment

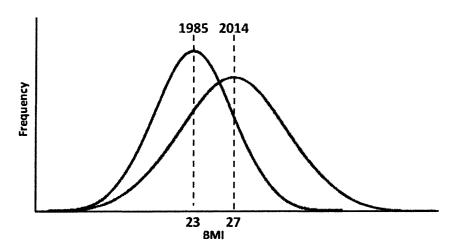


FIGURE 2 Two possible models to explain the increase in average BMI from 1985 to 2014

## Hypothalamus (in the Brain)

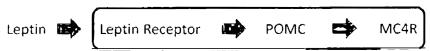


FIGURE 5 The leptin-melanocortin pathway

#### **Mendelian Genetics**

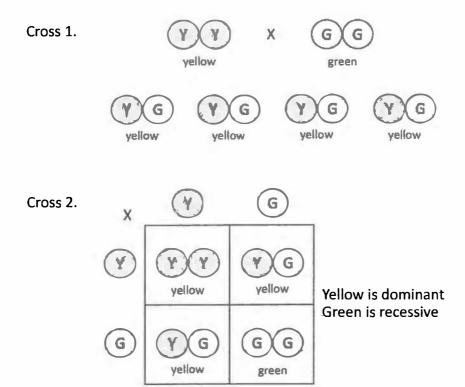


FIGURE 3 Gregor Mendel's pea-breeding experiments, establishing the concept of dominant and recessive genes

## Obesity risk score directly related to BMI in the population



FIGURE 8

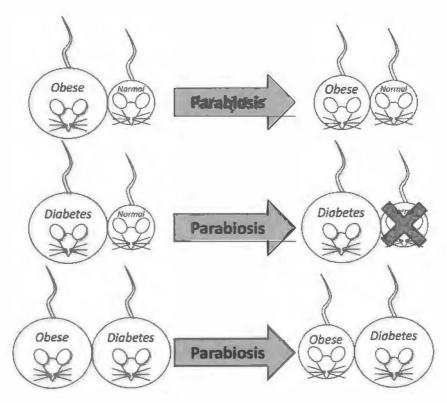
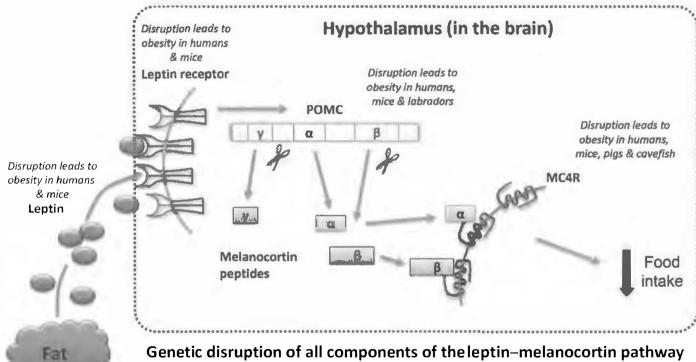


FIGURE 4 Doug Coleman's 'parabiosis' experiments that led to his 'satiety' factor hypothesis



Genetic disruption of all components of the leptin-melanocortin pathway leads to hyperphagia & obesity

## Obesity risk score directly related to BMI in the population



FIGURE 8

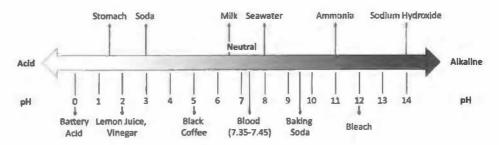


FIGURE 9 pH values of key substances

## Obesity Risk score directly related to BMI in the population



FIGURE 10

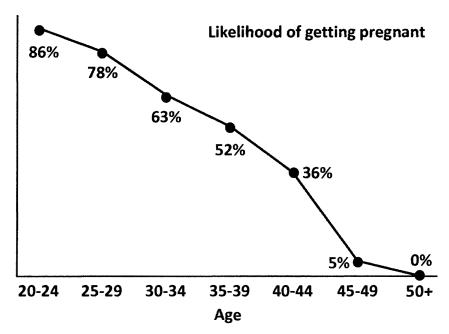


FIGURE 11