

Raw Data (.CEL)



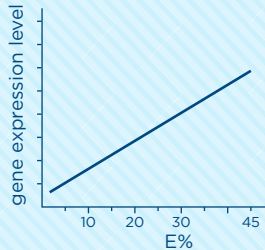
Data pre-processing (GCRMA, Quantile)  
& Quality assessment (RLE & NUSE)



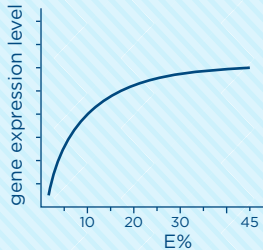
Analysis to identify Differentially Expressed Genes (DEG)

Linear, logarithmic, exponential, quadratic and cubic responses to dietary fat intake (specific to each intestine section; limma library)

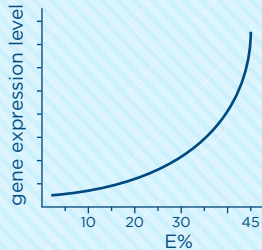
Linear response



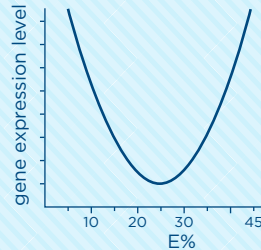
Logarithmic response



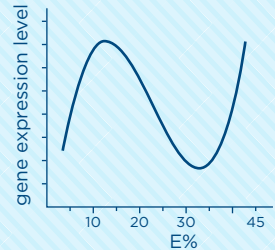
Exponential response



Quadratic response



Cubic response



Hypergeometric test to find over-represented Gene Ontology (GO) terms,  
Biological Processes (BP)

Significant GO terms associated to linear, logarithmic, exponential, quadratic and cubic responses  
(specific to each intestine section; HTSanalyzeR library)



Analysis of GOBP terms exhibiting unique trends from proximal to distal small intestine