

Antioxidant-rich diet group

Kiwifruit group

Control group

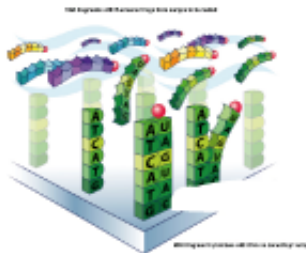
8 weeks intervention



whole blood total RNA

Quality cheque of RNA

cRNA (including Globin mRNA reduction)



Hybridizing labelled cRNA to
Affymetrix Human Genome U133 PLUS 2.0

Scanning of arrays

Quality control of raw data (CEL-files)



RNA normalization and \log_2 -transformation

Computing \log_2 ratios (after/before)

Identifying differentially regulated
gene-transcripts (intervention groups vs control)

Limma:

Identifying the most differentially
expressed genes,
unadjusted p values <5%.
Will include some false positives.

BAMarray

Identifying significantly
differentially expressed
genes adjusting for multiple
testing

Lists of up- and down-regulated
genes transcripts

- 1) Up-regulated (antiox. group)
- 2) Down-regulated (antiox. group)
- 3) Up-regulated (kiwifruit group)
- 4) Down-regulated (kiwifruit group)

Identifying regulated gene sets
(GSEA)

Threshold-free approach

- a) intervention groups vs controls
- b) post- vs pre intervention

Identifying regulated pathways
/GO processes (J-express)

Exploring regulated genesets
and references