#### Gene set

Gene 1

Gene 2

Gene 3

Gene 4

Gene 5

Gene 6

Gene 7

Gene 8

#### Gene set

Gene 1

Gene 2

Gene 3

Gene 4

Gene 5

Gene 6

Gene 7

Gene 8

#### Gene set

Gene 1

Gene 2

Gene 3

Gene 4

Gene 5

Gene 6

Gene 7

Gene 8

#### Gene set

Gene 1

Gene 2

Gene 3

Gene 4

Gono 5

Gene 6

Gene 7

Gene 8

## Non-directional:

Test for enrichment of significant (low p-value) genes, ignoring fold-change direction.

Significantly increased

expression

negligible

change

Significantly decreased

expression

## Mixed-directional (down and up):

Test if a *subset* of the gene set is enriched in significantly increased or decreased genes

### Distinct-directional (down and up):

Test if the gene set is enriched in significantly increased or decreased genes

### Non-directional:

Test for enrichment of significant (low p-value) genes, ignoring fold-change direction.

## Mixed-directional (down and up):

Test if a *subset* of the gene set is enriched in significantly increased or decreased genes

#### Distinct-directional (down and up):

Test if the gene set is enriched in significantly increased or decreased genes

## ? Non-directional:

Test for enrichment of significant (low p-value) genes, ignoring fold-change direction.

# Mixed-directional (down and up):

Test if a *subset* of the gene set is enriched in significantly increased or decreased genes

#### Distinct-directional (down and up):

Test if the gene set is enriched in significantly increased or decreased genes