

**Supplementary Fig. 1.** Diagrammatic representation of a direct sequential loop design applied to analyse microarray gene expression changes in salicylic acid (SA) treated pearl millet plants over time. Each circle represents an RNA sample extracted from pearl millet leaves at a specified time post SA treatment. The head of the arrow indicates that the sample was labelled with Cy<sup>™</sup>5 dye (shown in red), while the tail represents a single hybridisation experiment. The same experimental design was applied to analyse pearl millet plants that had been treated with methyl jasmonate or *Puccinia substriata*, although samples were taken at 0 h, 20 hpi, 5 dpi and 8 dpi for the latter experiment.