

## Figure S3. Schematic of the strategy for dividing the DEGs into eight subcategories

'LI-DEGs' and 'IO-DEGs' are intersected. A gene is determined to be 'progressive-up' when the gene is upregulated both in 'LI-DEGs' and 'IO-DEGs'. A gene is defined as 'progressive-down' when the gene is downregulated both in 'LI-DEGs' and 'IO-DEGs'. A gene is 'initial-up' when the gene is upregulated in 'LI-DEGs' but not in 'IO-DEGs'. A gene is 'initial-down' when the gene is downregulated in 'LI-DEGs' but not in 'IO-DEGs'. A gene is 'initial-down' when the gene is downregulated in 'LI-DEGs' but not in 'IO-DEGs'. A gene is 'initial-down' when the gene is downregulated in 'LI-DEGs' but not in 'IO-DEGs'. A gene is 'initial-down' when the gene is not upregulated in 'LI-DEGs' but is upregulated in 'IO-DEGs'. A gene is 'later-up' when the gene is not downregulated in 'LI-DEGs' but is downregulated in 'IO-DEGs. A gene is 'up-to-down' when the gene is upregulated in 'LI-DEGs' and downregulated in 'IO-DEGs' and 'down-to-up' when the reverse applies.