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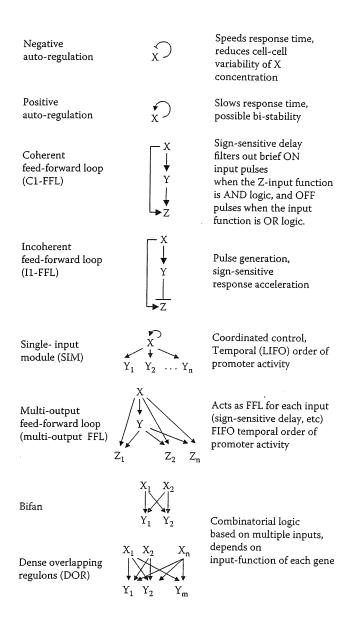


FIGURE 5.15 Network motifs in sensory transcription networks.

## **EXERCISES**

5.1. Equal timing. Consider a SIM controlled by regulator X that activates downstream genes  $Z_i$ , i=1,...,n, with thresholds  $K_i$ . At time t=0, X begins to be produced at a constant rate  $\beta$ . Design thresholds such that the genes are turned on one after the other at equal intervals (use logic input functions).

<sup>)</sup> or multistable (a comeed to perform reversible amily of directed acyclic