

## Temporal control of transcription in phage infection

- early genes recognized by intrinsic  $\sigma$  factor (-10 and -35 elements)
- early genes are transcription factors for middle genes, which in turn are TFs for late genes

### T7 phage

- host polymerase transcribes class I genes
- one of the class I genes is the phage polymerase, which synthesized class II and III genes

### $\lambda$ phage infection

- 2 competing phases: lytic and lysogenic
- cI gene encodes a  $\lambda$  repressor, induces lysogenic phase
- cro gene induces lytic phase