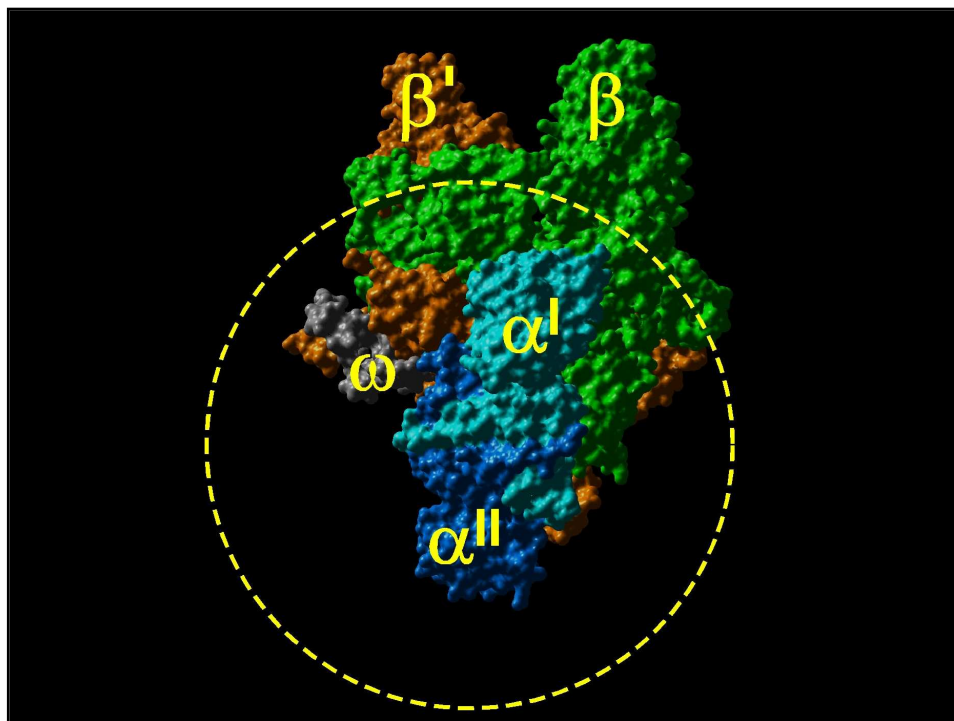


Transcription Elongation, Pausing, Arrest, and Termination: Structure and Mechanism

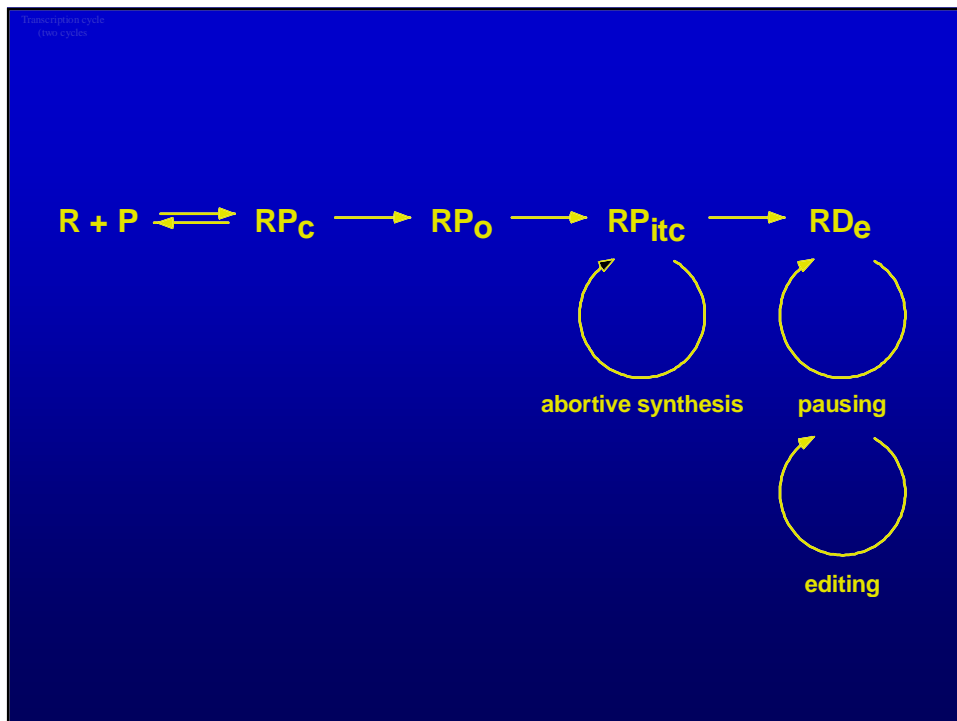
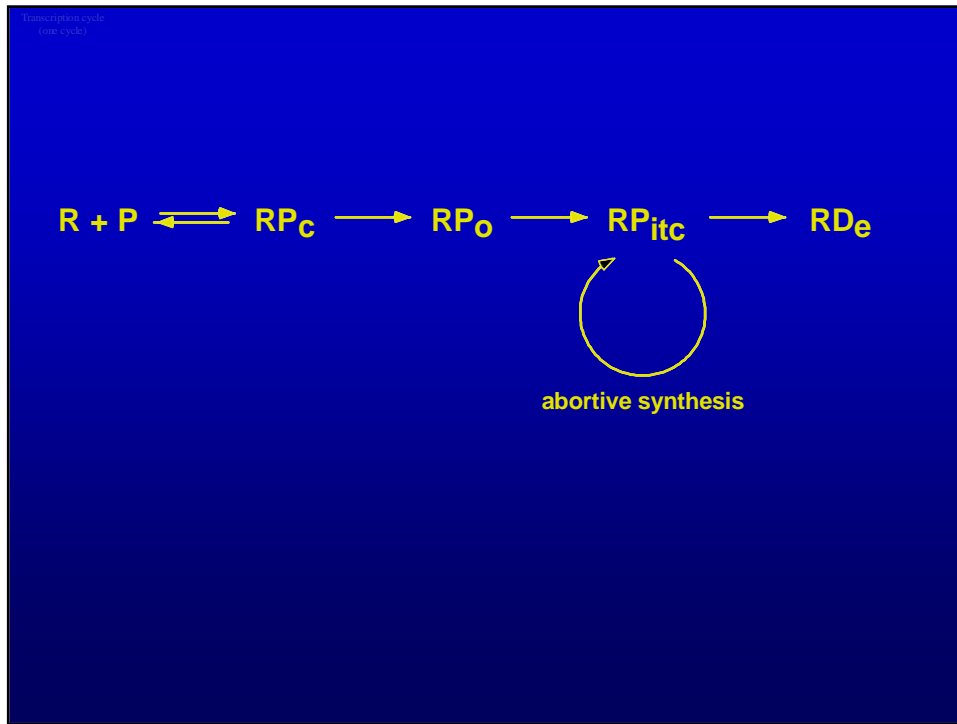
Multi-subunit RNAP family

MULTI-SUBUNIT RNA POLYMERASES

bacterial RNA polymerase	β'	β	α'	α''	ω	
archaeal RNA polymerase	A'/A''	B	D	L	K	+6 others
eukaryotic RNA polymerase I	RPA1	RPA2	RPC5	RPC9	RPB6	+9 others
eukaryotic RNA polymerase II	RPB1	RPB2	RPB3	RPB11	RPB6	+7 others
eukaryotic RNA polymerase III	RPC1	RPC2	RPC5	RPC9	RPB6	+11 others



Transcription Elongation, Pausing, Arrest, and Termination: Structure and Mechanism



Transcription Elongation, Pausing, Arrest, and Termination: Structure and Mechanism

TBC-key issues

Transcription elongation: key issues

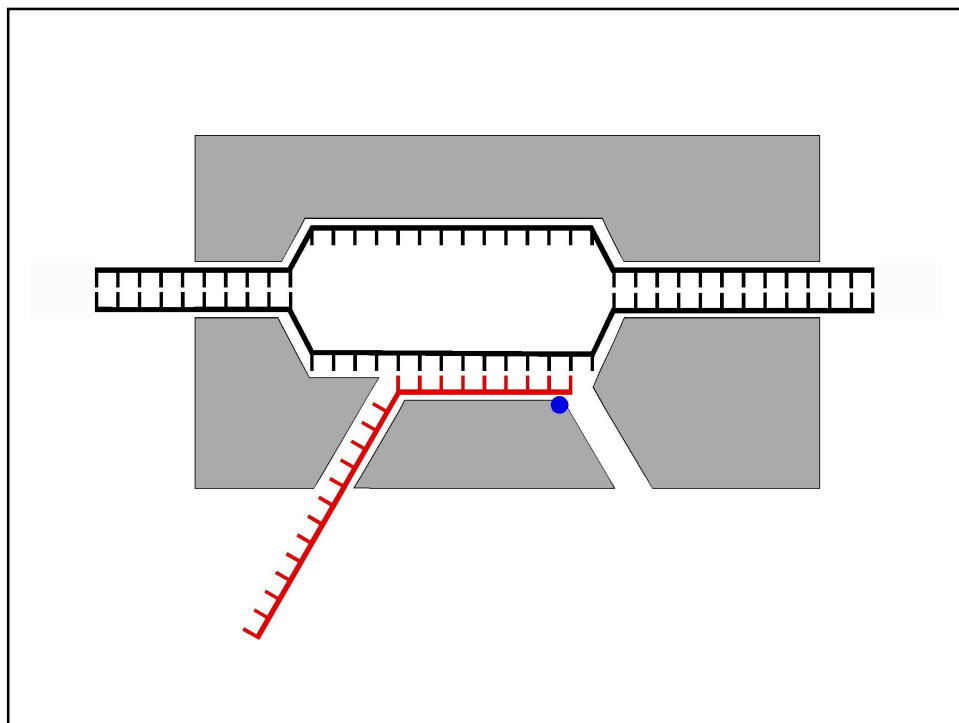
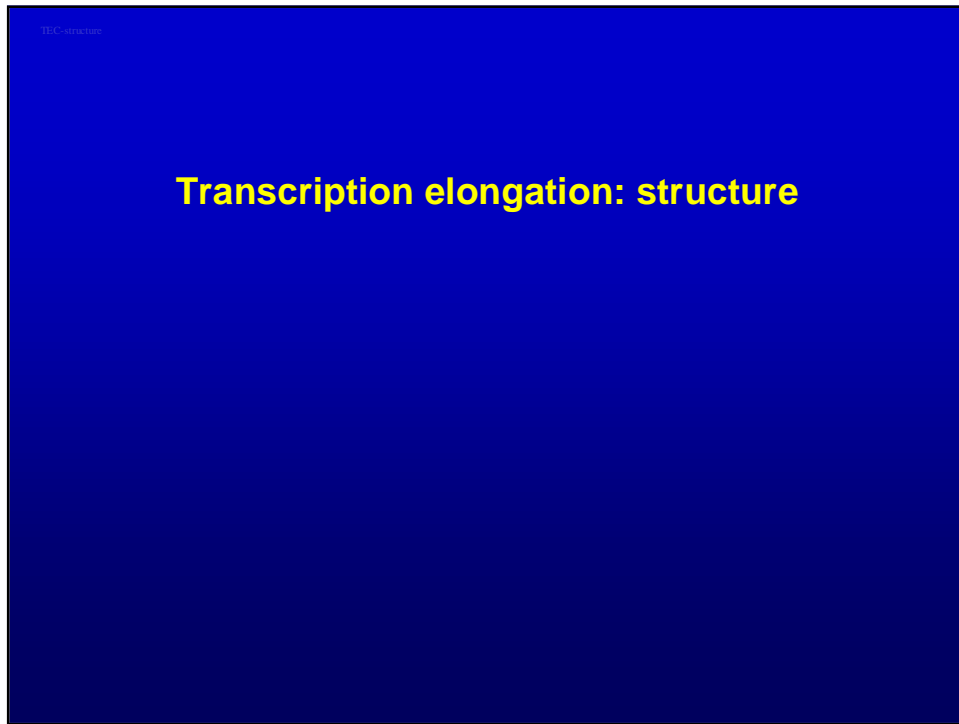
- Elongation mechanisms
 - Force generation
 - Coupling of chemical and mechanical energy
- Termination mechanisms
- Pausing mechanisms
- Editing mechanisms
- Sequence effects
- Quantitative simulation
- Informatics

TBC-reaction

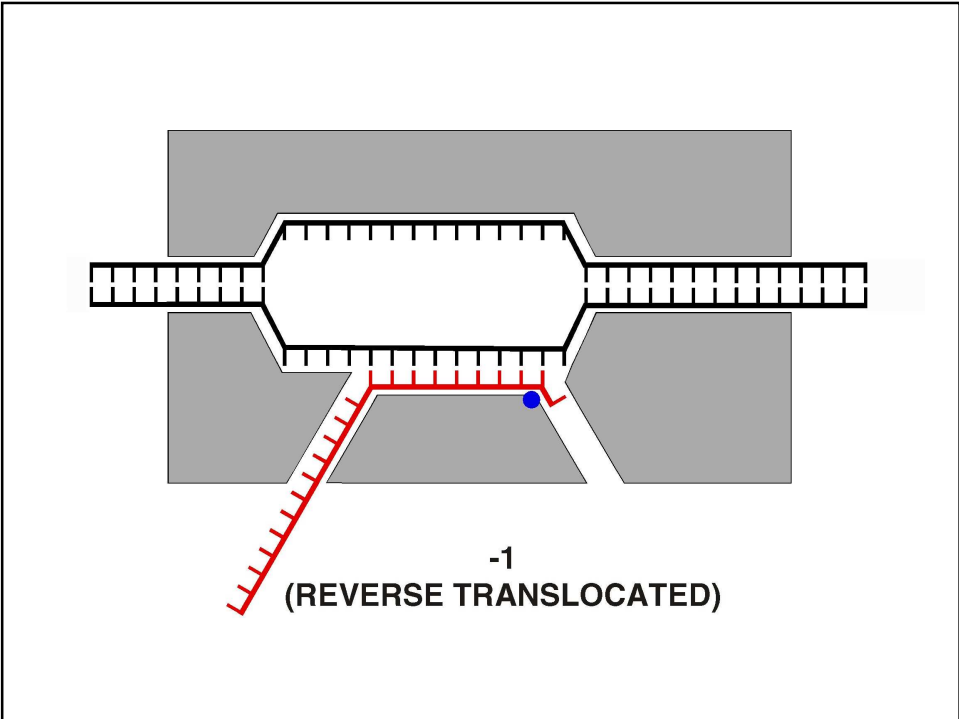
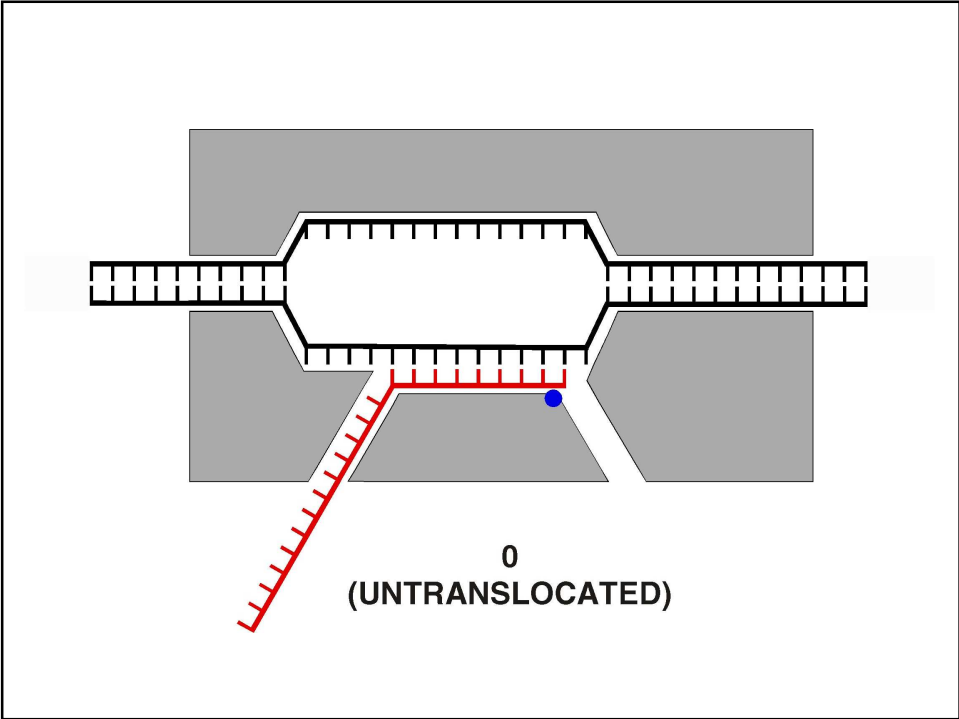
Transcription elongation: reaction



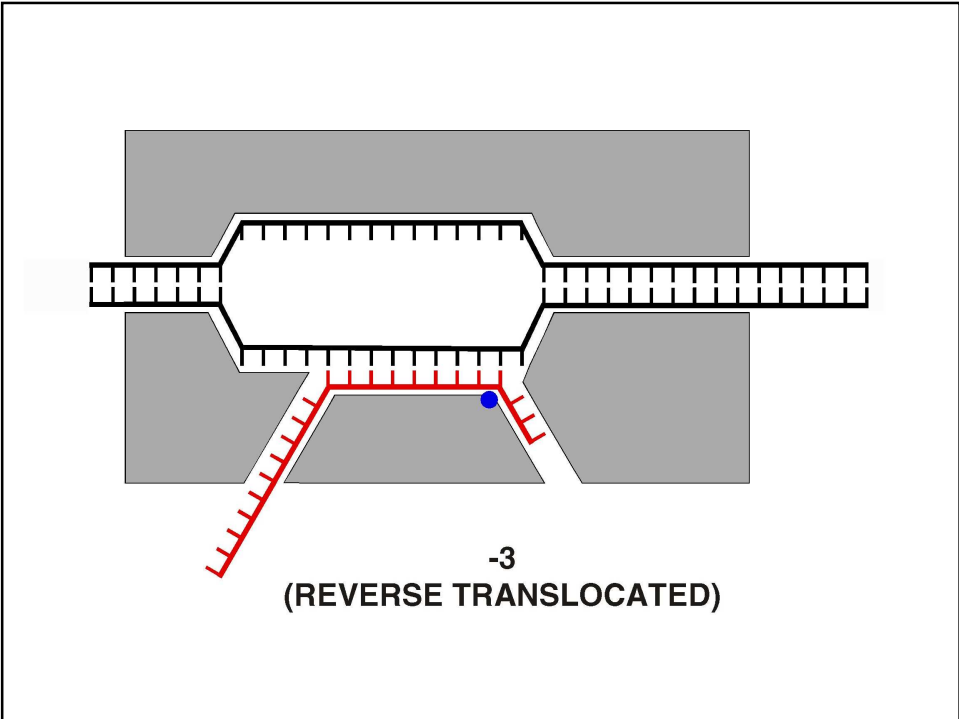
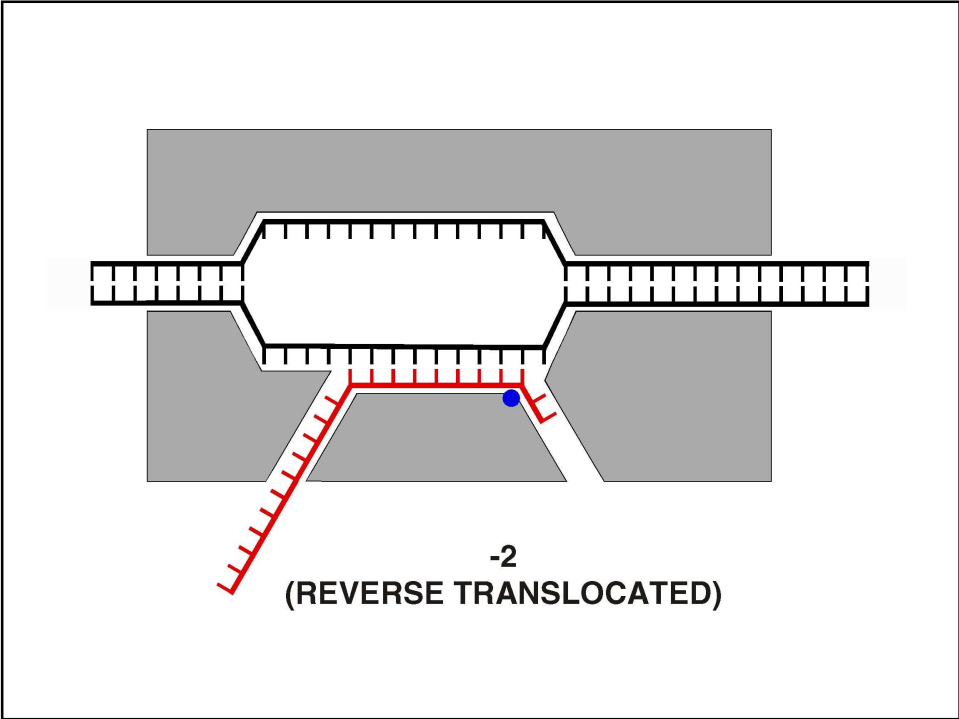
Transcription Elongation, Pausing, Arrest, and Termination: Structure and Mechanism



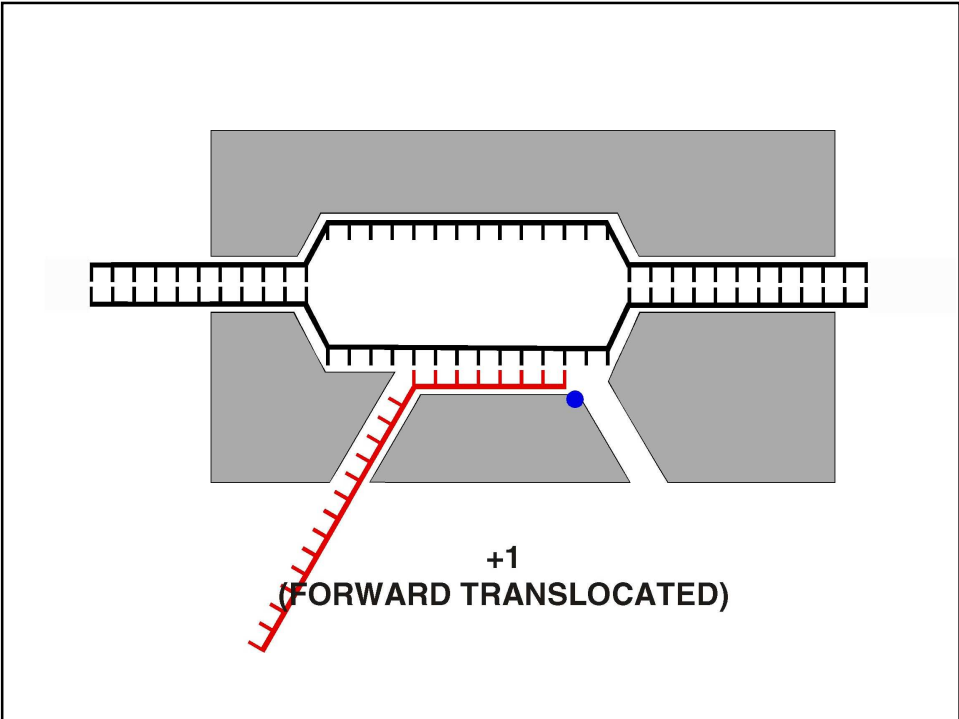
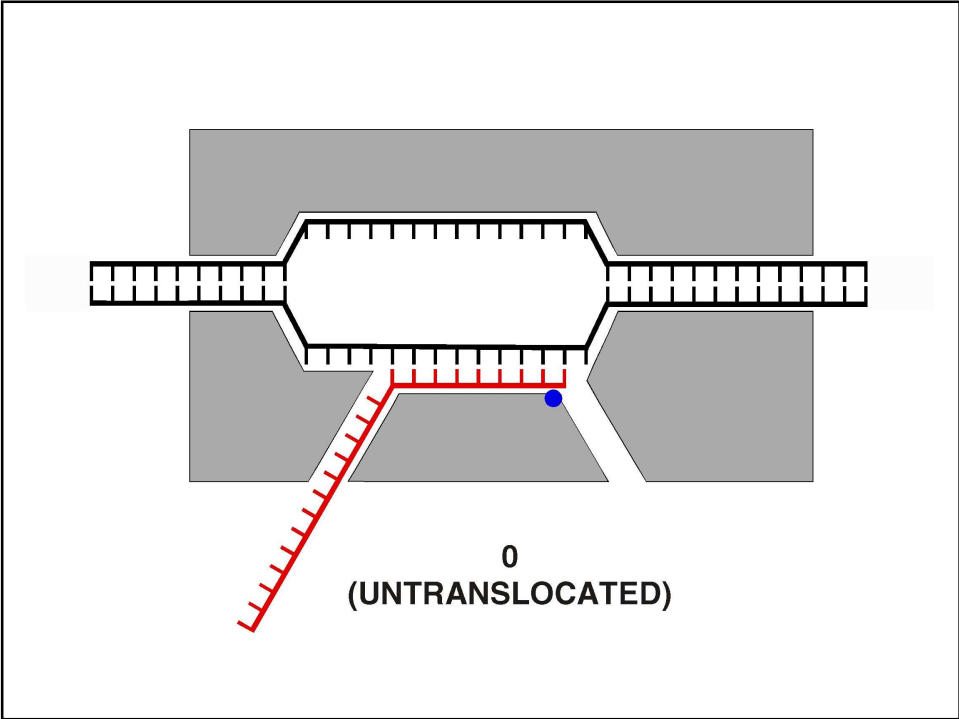
Transcription Elongation, Pausing, Arrest, and Termination: Structure and Mechanism



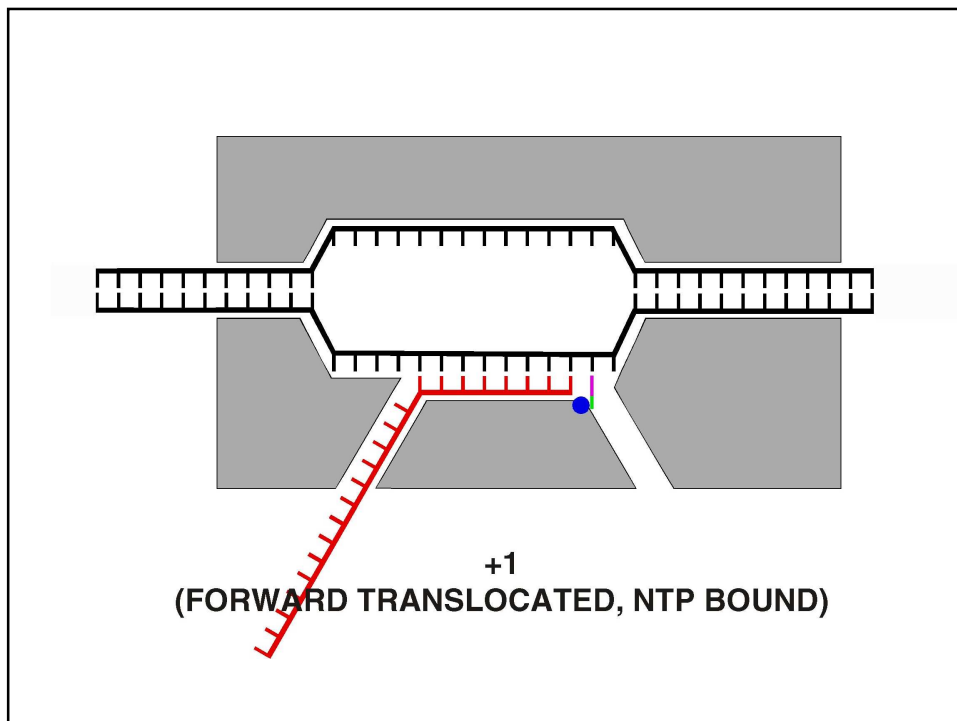
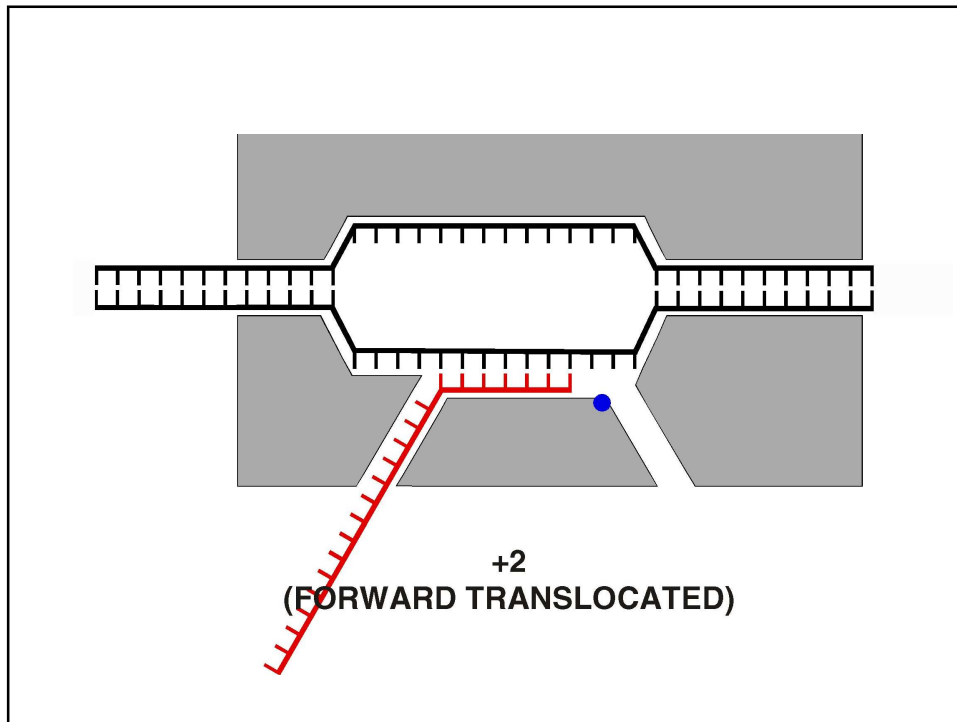
Transcription Elongation, Pausing, Arrest, and Termination: Structure and Mechanism



Transcription Elongation, Pausing, Arrest, and Termination: Structure and Mechanism



Transcription Elongation, Pausing, Arrest, and Termination: Structure and Mechanism



TBC content work

Transcription elongation: current work

- Experimentation
 - Elongation
 - Termination
 - Pausing
 - Editing
 - Cooperative effects
 - Multiple RNAP molecules
 - Ribosomes
- Quantitative simulation
- Informatics