

Transcription, post-transcriptional processing of RNA in eukaryotes

Transcription machinery: RNA polymerases I, II, and III, transcription factors, activator, mediator and chromatin modifying proteins
From DNA to RNA: timing, sigma factor, promotor, TATA box, transcriptional initiation complex, transcription bubble, elongation factors, superhelical tension, terminator, nucleoplasmic and nucleolar transcription

Post-transcriptional processing: splicing, intron, exon, role of snRNAs, alternative splicing, capping, polyadenylation, moving RNA from transcription sites to its biological destiny