Overview
For our second session on transcription, we will begin by discussing transcription initiation in somewhat greater detail, considering the kinetics of the initiation process. Next, we will discuss the transcription cycle as a whole, focusing on the post-initiation stages of transcription, including promoter escape, elongation and termination.

Our paper for discussion describes the discovery that DksA is a transcription initiation factor that is required for the regulation of rRNA synthesis. Unlike classical repressors and activators, which target specific promoters by binding to DNA recognition sites associated with those promoters, DksA binds directly to RNAP and affects transcription initiation at promoters that have distinctive kinetic properties. DksA is an example of a class of regulator called a secondary channel regulator.

The review from Nickels and Hochschild is provided for background reading.

Paper for Discussion

Background Reading