

TRANSCRIPTION, FROM DNA TO RNA

THURSDAY
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2:30PM – 4:00PM

ANATOMY SEMINAR ROOM,
L2, MD10, DEPARTMENT
OF ANATOMY, NUS.

DR CHEN MO

**Rockefeller University
New York
USA**

Abstract:

DNA stores genetic information in a stable form that can be readily replicated. The expression of this genetic information requires its flow from DNA to RNA and, usually, to protein. This lecture examines RNA synthesis from DNA, or *Transcription*, which is the process of synthesizing an RNA transcript with the transfer of sequence information from a DNA template. We begin by introducing the biochemical reaction of transcription and the enzymes that catalyze it, the RNA polymerase. We will then focus on regulatory elements in the three steps of transcription, *initiation, elongation and termination*, in both bacterial and eukaryotic transcription. Transcriptional mechanism of eukaryotic RNA polymerase II will be discussed in great detail.