The Molecular Basis of Heredity

A metabolic pathway

When enzyme E is not available, substrate C will accumulate

One metabolic pathway studied by Garrod

Going from Gene to Protein:
Prokaryotes vs. Eukaryotes
The Flow of Genetic Information in the Cell

(a) Information flows from DNA to RNA to proteins.

(b) DNA sequences define the genotype; proteins create the phenotype.

(c) Changes in the genotype may lead to changes in the phenotype.

The Genetic Code

The Genetic Code

Transcription Overview
Initiation of Transcription:

Transcriptional Elongation:

RNA Processing

Noncoding regions must be removed from RNA transcripts.