

Regulation of gene expression SS03

Prokaryotic cells:

- basic terms – gene, operon, promotor, operator
- induction (Lac operon)
- repression (Trp operon)

Eucaryotic cells:

- differences between eukaryotic and prokaryotic cells
- regulation of gene expression on many levels:
 - transcription level
 - presence of transcription factors – basic and specific
 - posttranscriptional modification of primary transcript (preparation of mature mRNA)
 - 5' capping
 - 3' polyA tail
 - splicing and alternative splicing
 - stability and durability of mRNA
- translation

Useful YouTube videos on the topic:

<https://www.youtube.com/watch?v=TEQMeP9GG6M>

<https://www.youtube.com/watch?v=DYgpRosowcg>

<https://www.youtube.com/watch?v=4pSTNYqQvXM>

...and many others

Next week:

- new topic (digestion, digestion enzymes, production of HCl in stomach and its regulation)