

**Source:** [KBiologyMasterIndex](#)

0.1 | **#flo #ret**

## 1 | **Notes**

### 1.0.1 | **Overview**

- Organisms turn genes on and off which is called Gene Expression
  - This can be done in response to external and internal signals
    - These signals are based off of environmental factors
  - This is also be done in order to specialize cells
    - Certain cells need certain genes to preform their specific role

### Differential Gene Expression - Human Cells can express about 20% of it's protein coded genes at any given time - Most cells contain the same genome - Each cell type must use specific parts of this genome - This is called Differential gene expression - Exception would be cells of the immune system - Due to the importance of gene expression when it has issues it can affect the organism significantly - Process of Gene expression in a Eukaryotic cell - Chromatin (DNA unpacking) -> - RNA processing -> - Transport to cytoplasm -> - Translation -> - Protein processing -> - Transport to cellular destination-> - This process can often be equated to transcription for Prokaryote cells

### 1.0.2 | **Regulation of Chromatin Structure**

•