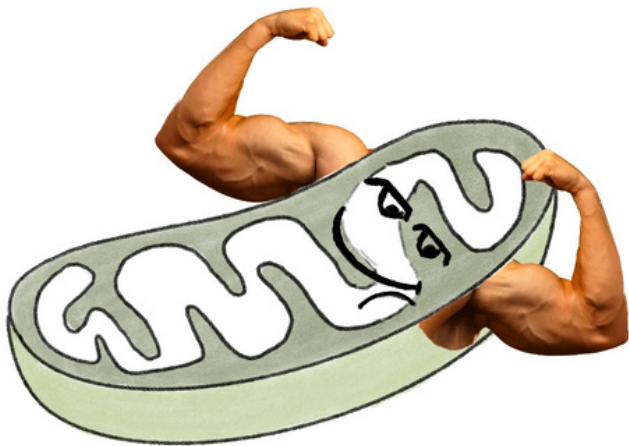
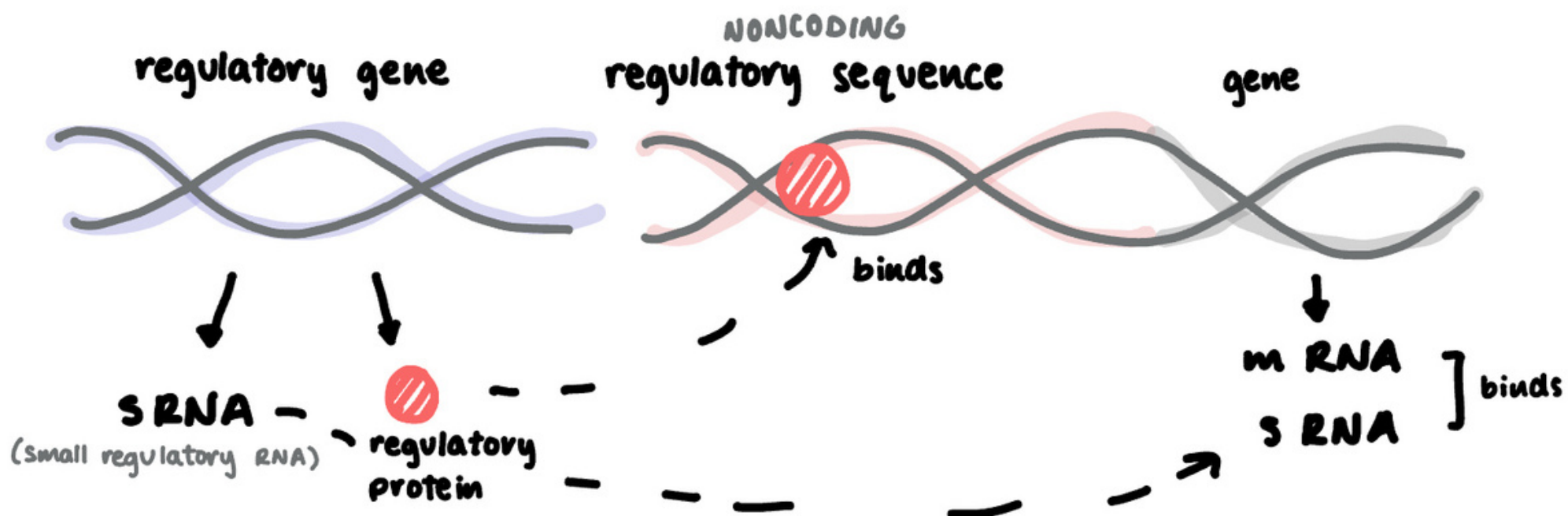


AP BIOLOGY

GENE REGULATION

REVIEW





KEY DEFINITIONS

- **Promoter**: a regulatory sequence that RNA polymerase binds to → starts transcription
- **Operator**: a regulatory sequence that regulatory proteins bind to
- **Repressor**: regulatory protein that inhibits transcription
- **Activator**: regulatory protein that stimulates transcription

PROKARYOTES

→ regulation is through **operons**: a stretch of DNA made up of promoter, operator, & genes they control

- **repressible operon**: usually on, & expressing genes

- **inducible operon**: usually off → repressor active by default

EUKARYOTES

→ regulation is through different stages

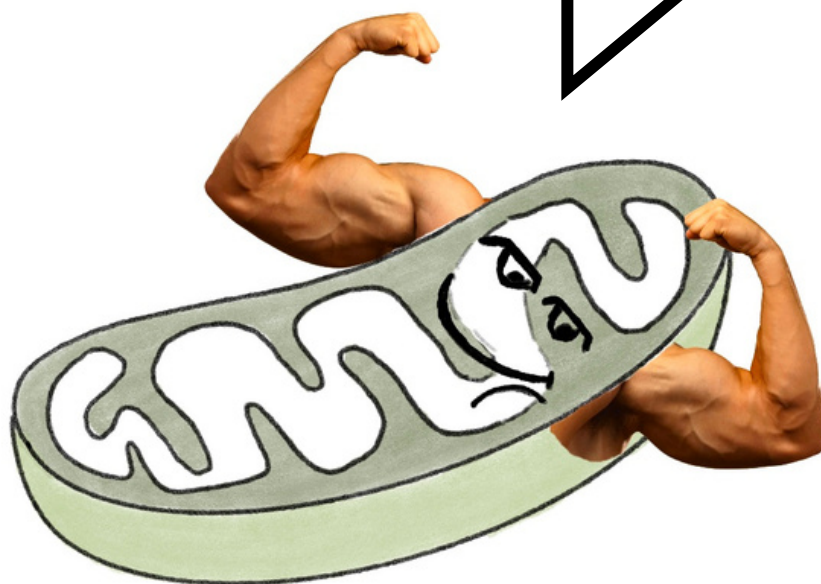
- **Epigenetic regulation**: loosening of tightly coiled DNA → accessible for transcription

- **Transcription factors**: regulatory proteins that bind to enhancers or silencers

 - **enhancers**: activation, allows RNA polymerase to bind to promoter

 - **silencers**: inhibition } prevents

**follow for
more!**



@mightochondria



@mightochondria.stem

