

# The Basics of Synbio

# The Central **DAWGMA** of Biology



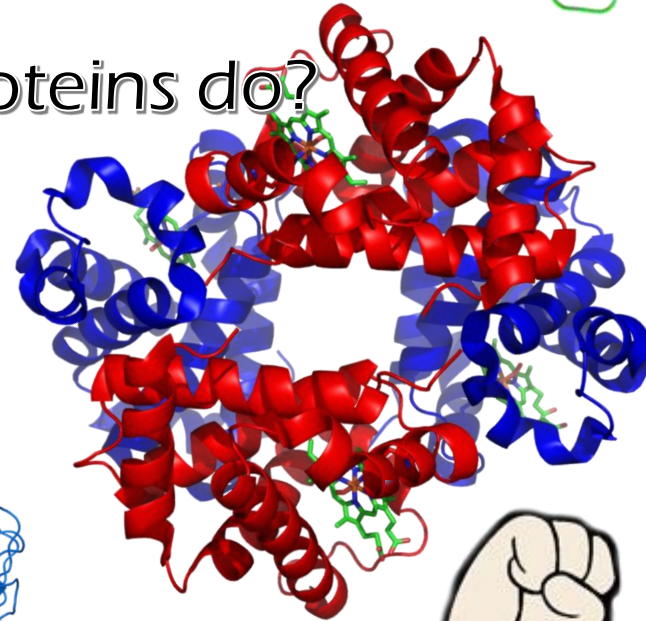
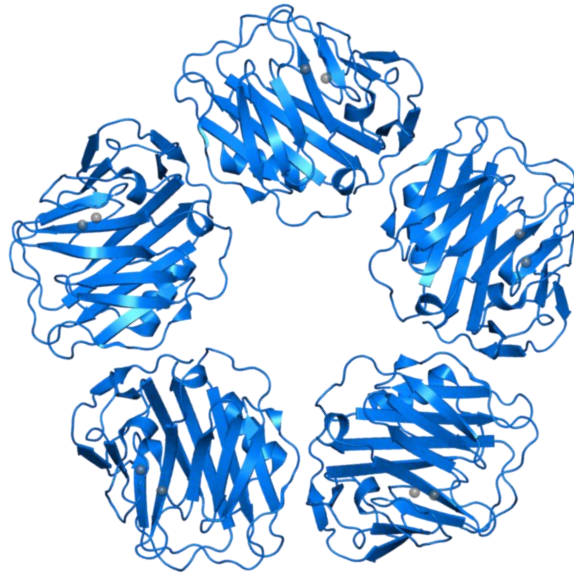
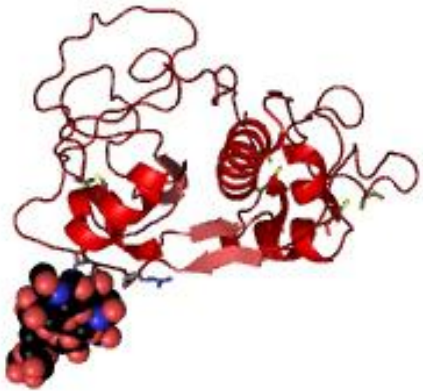
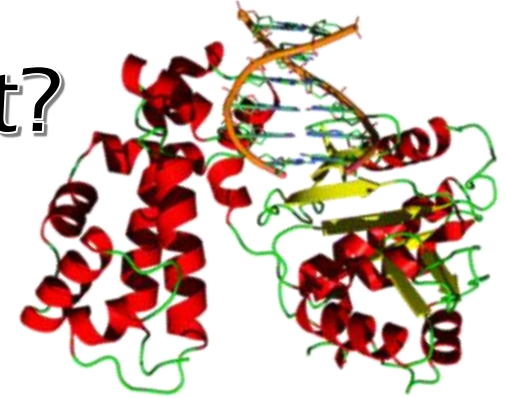
DNA-> RNA -> Protein  
(With only a few minor Exceptions)

# Proteins... Like muscles and stuff right?

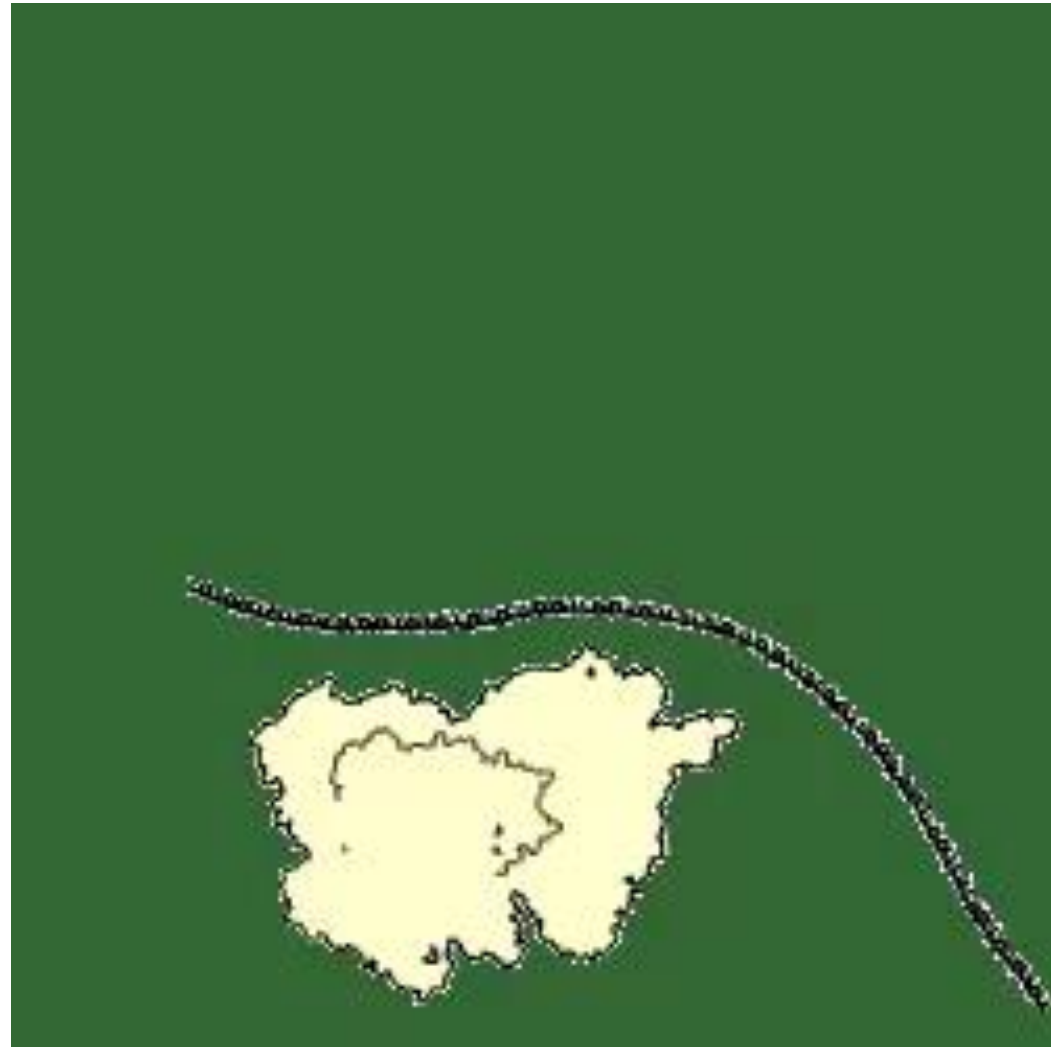


Sooo...

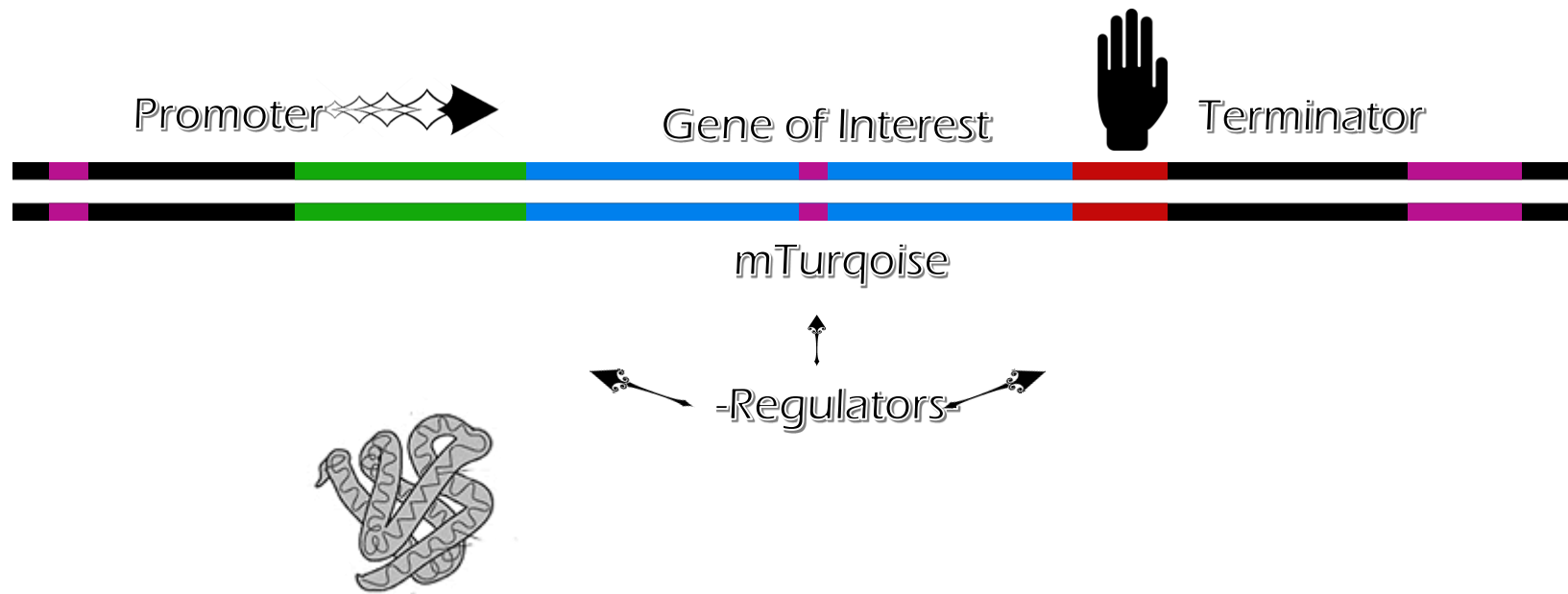
What do proteins do?



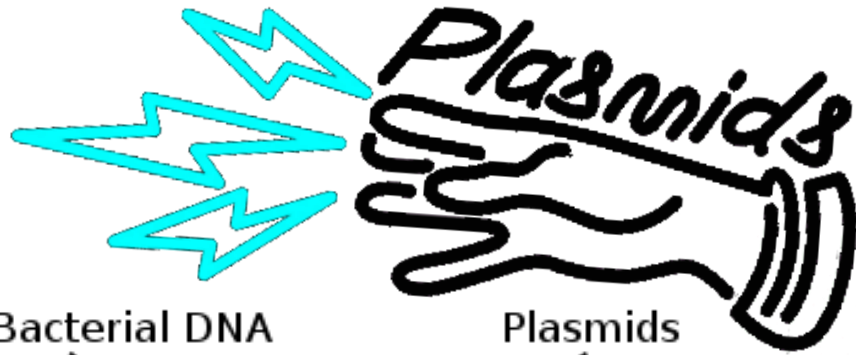
# RNA -> Protein



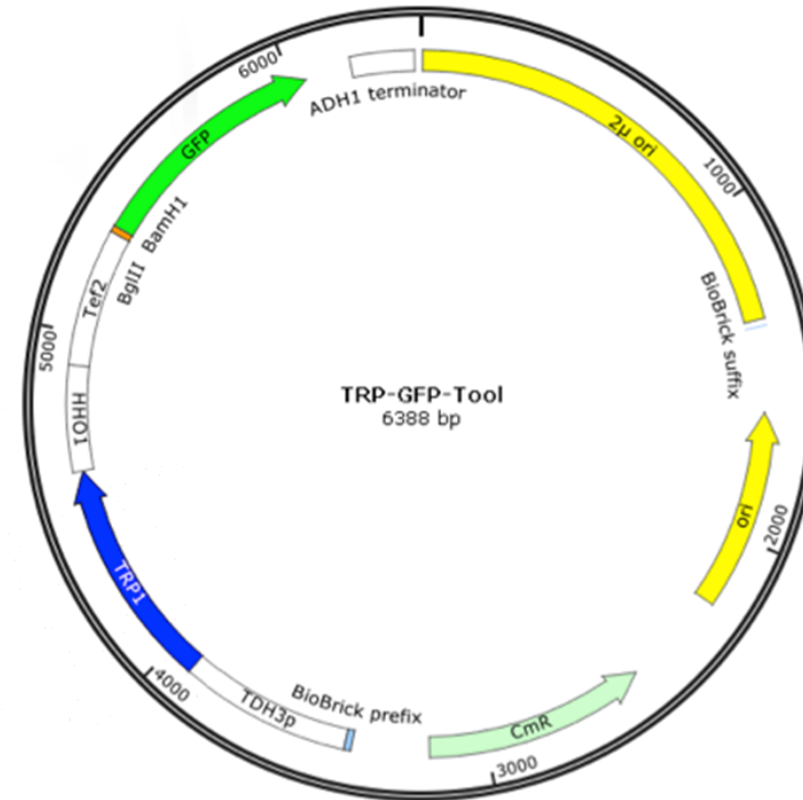
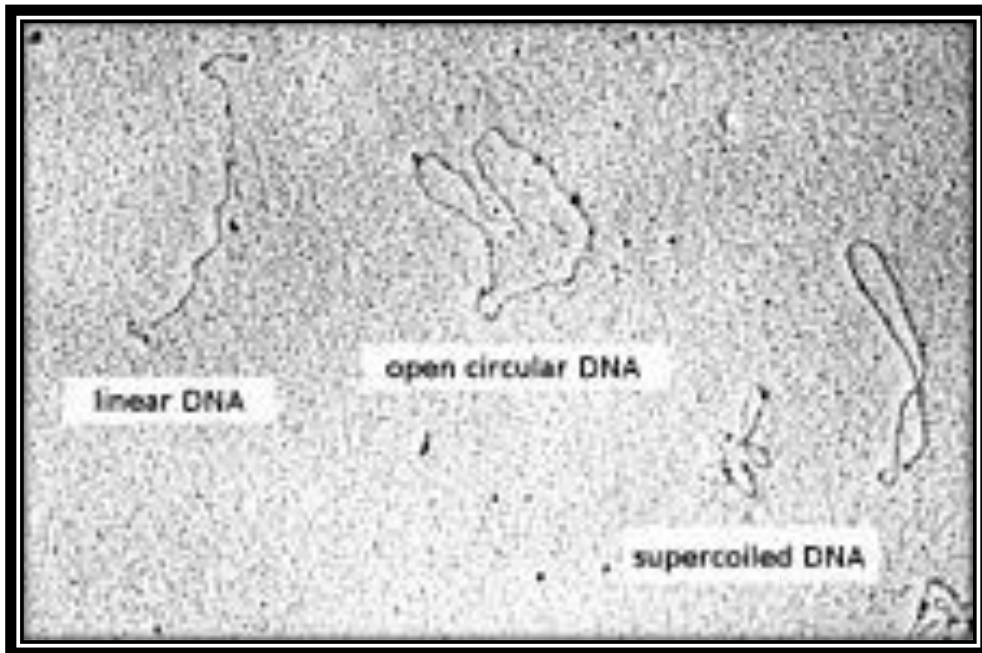
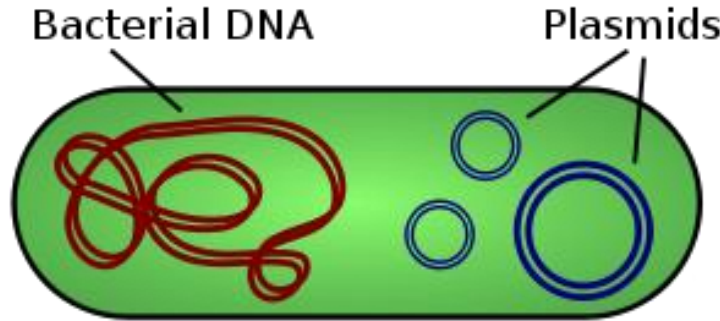
# What makes Genes Work?





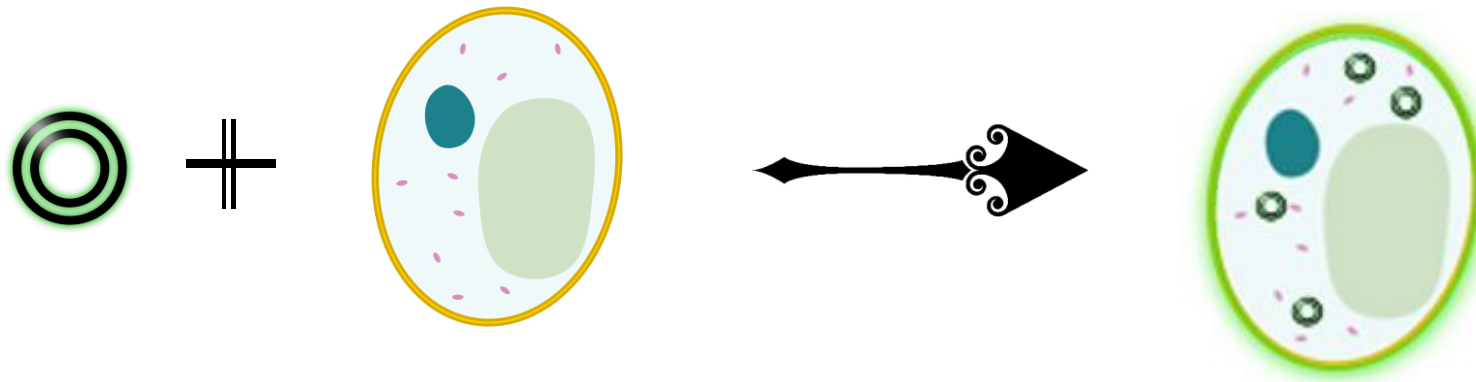


A plasmid is a circular unit of DNA found naturally in bacteria as well as some species of eukaryotes. Plasmids are unique because they are able to replicate independently from chromosomal DNA.



# EVOLVE TODAY!!

Plasmids are the vector we use to introduce foreign DNA into organisms. The process we use for yeast and e. coli is called "Transformation"



# The Plasmid Design Checklist:

- Origin of Replication (Ori),
- Gene of interest (GOI),



# Continued...

- Selection Marker
- Optional: Homology Regions