

In the name of the most high

# Introduction to Bioinformatics Proteins

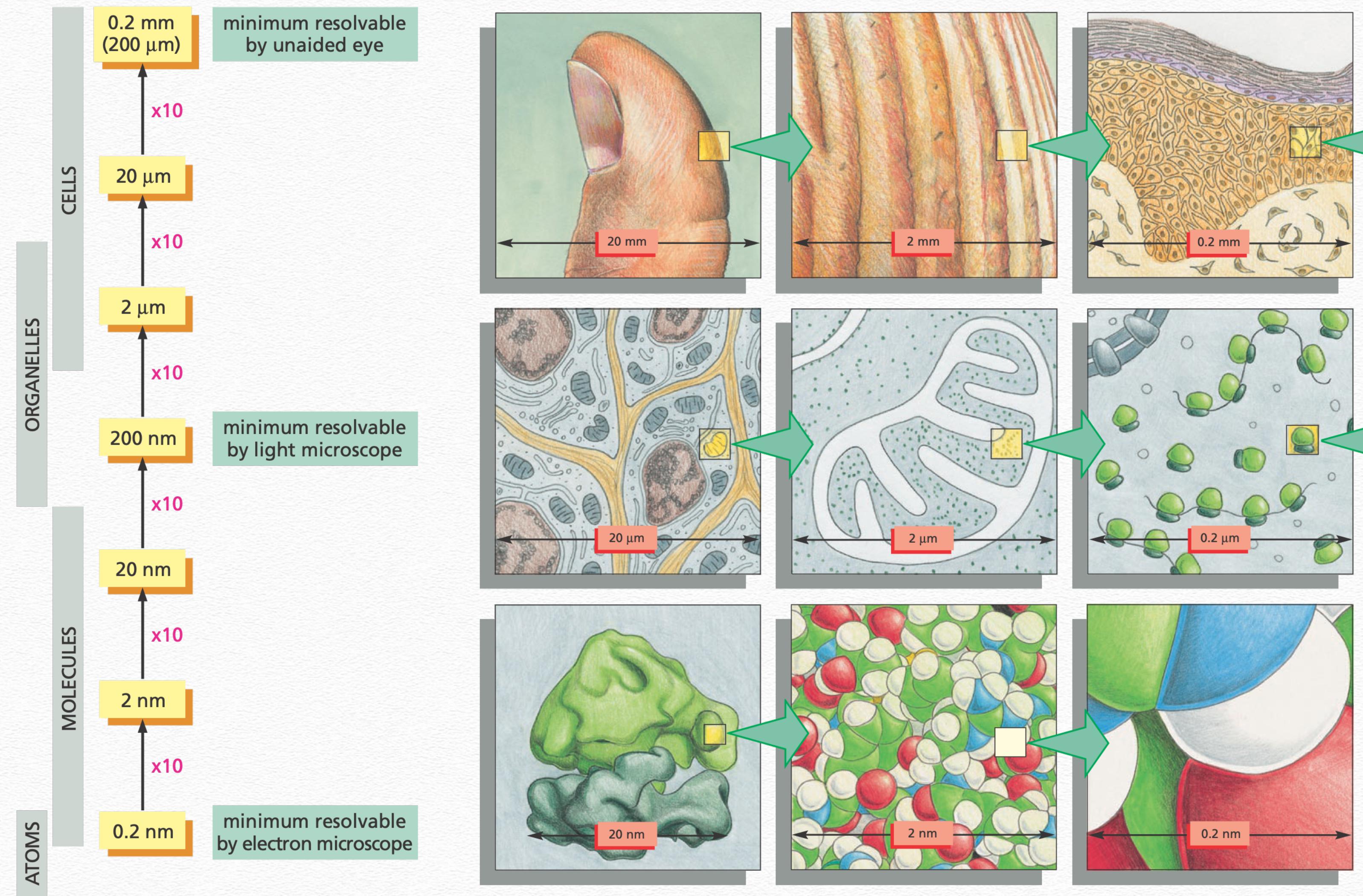
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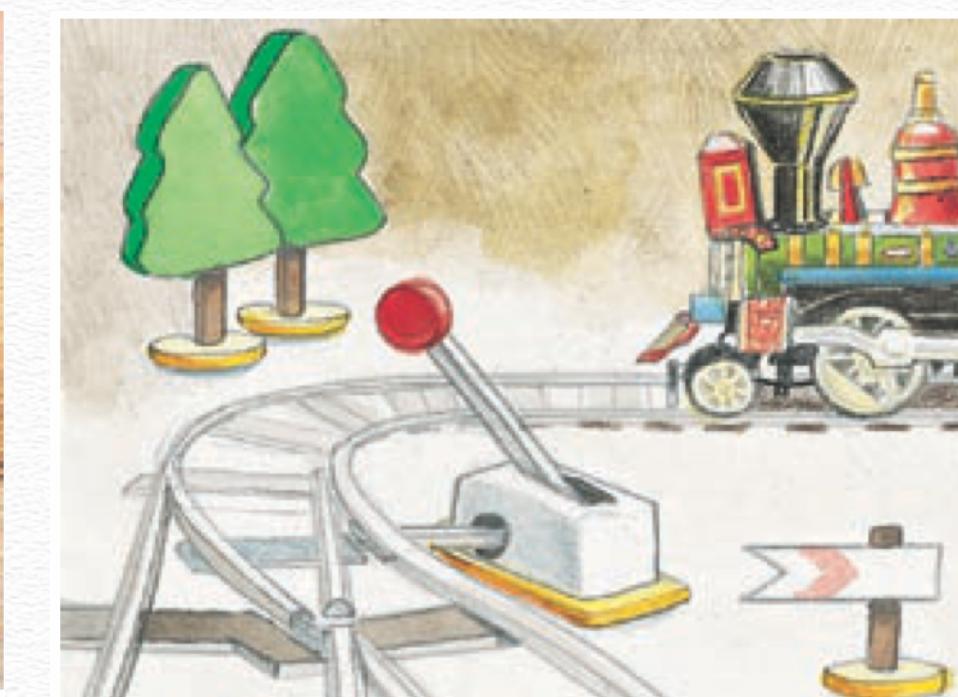
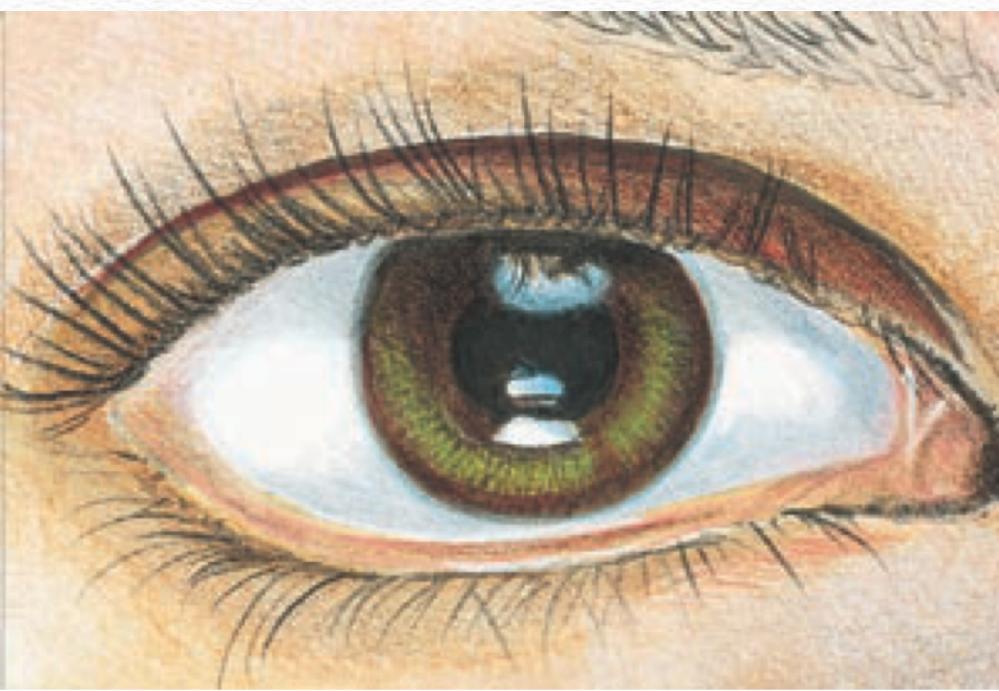
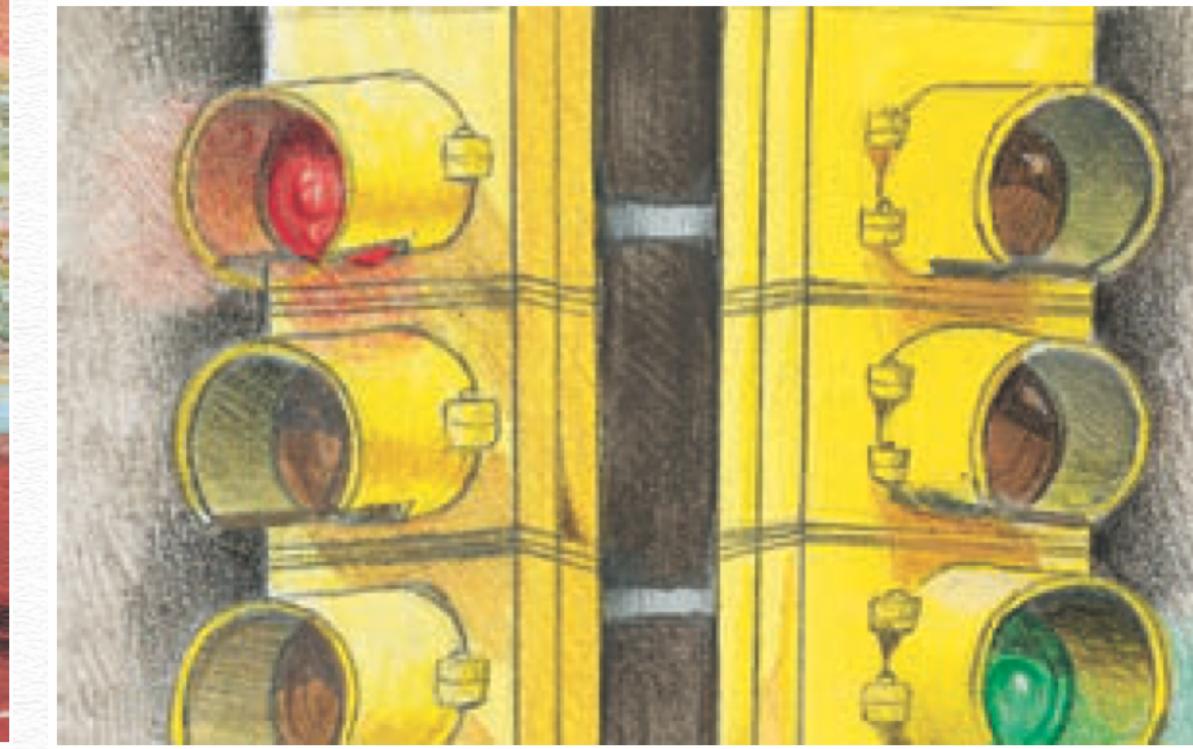
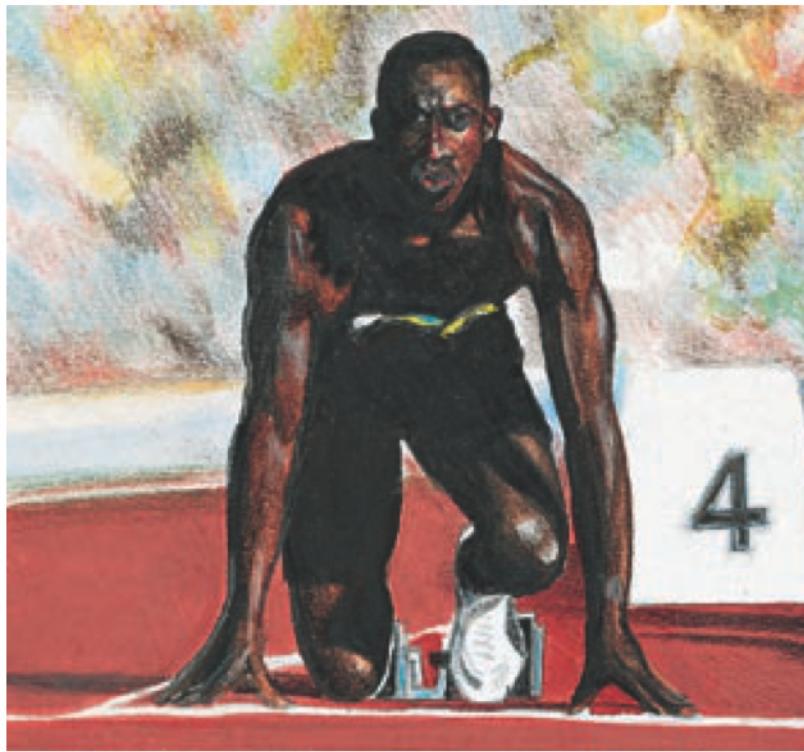
The contents including images and videos are from Bruce Alberts et al. Essential Cell Biology,  
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# What can we see?



# How our body can do such wonderful things?

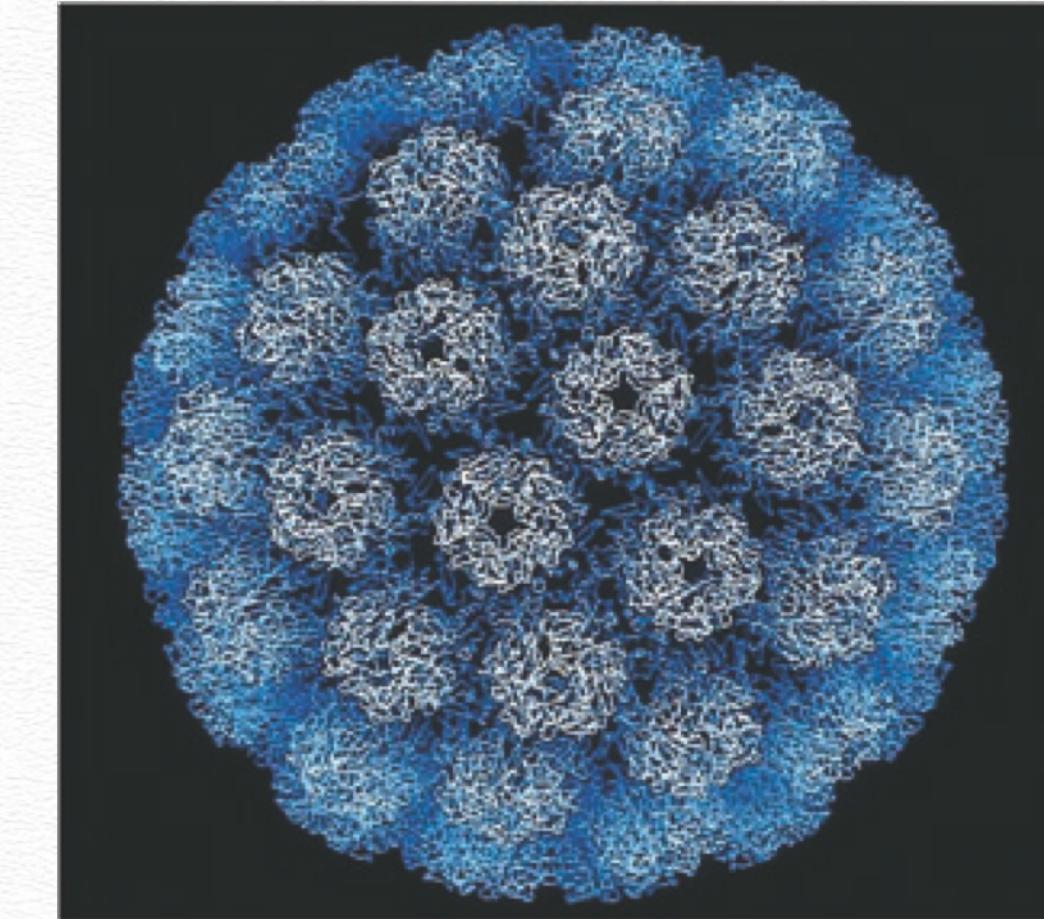
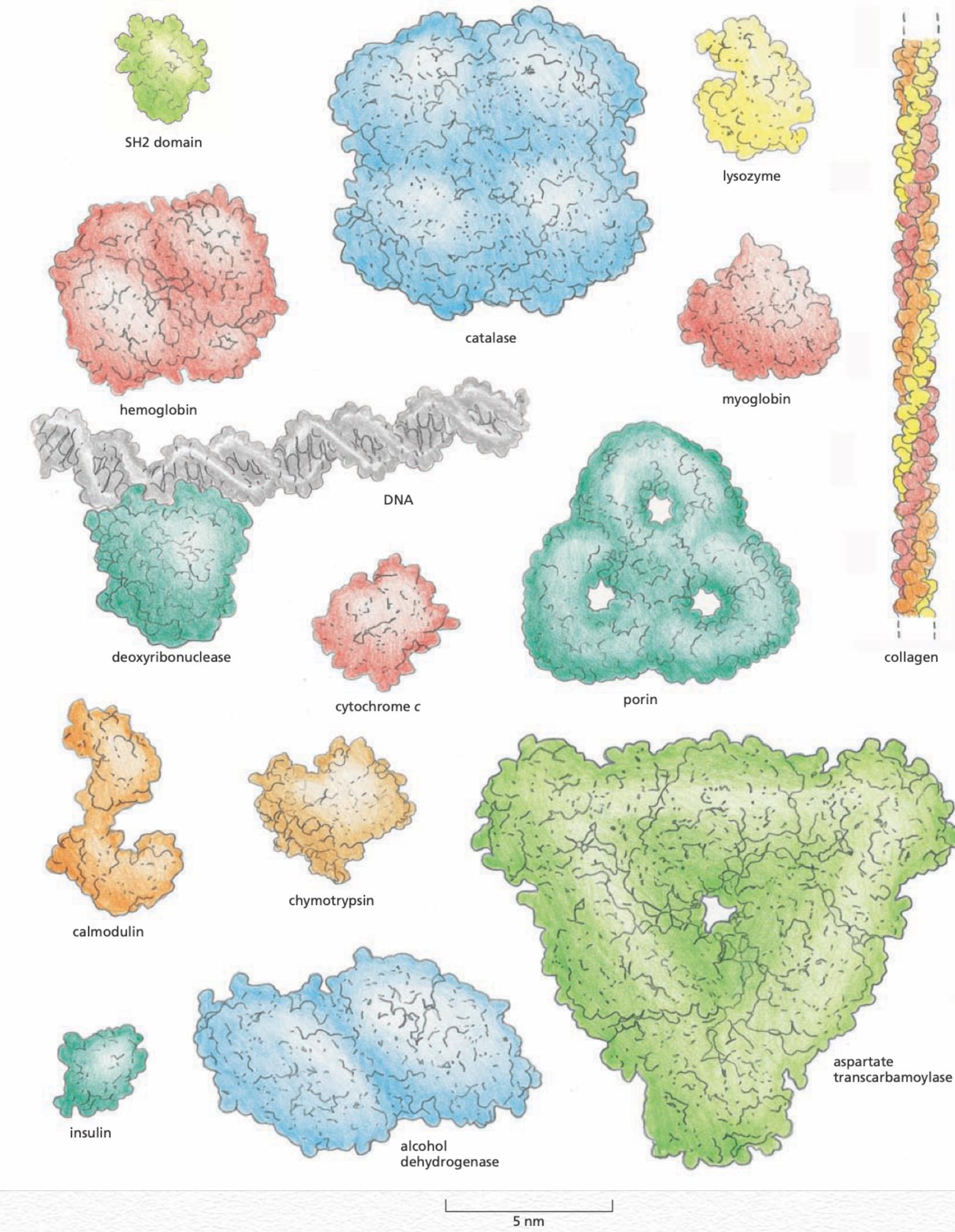


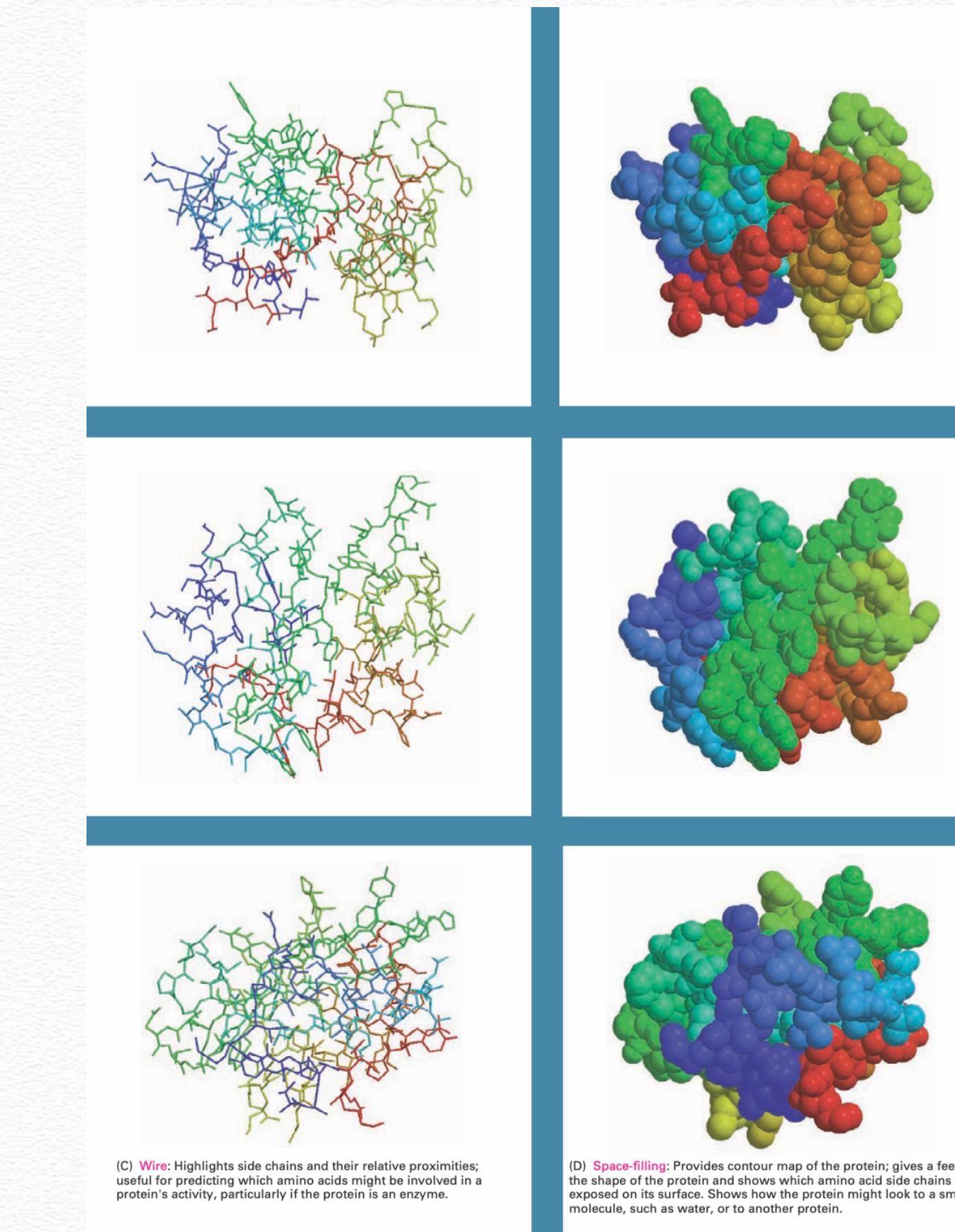
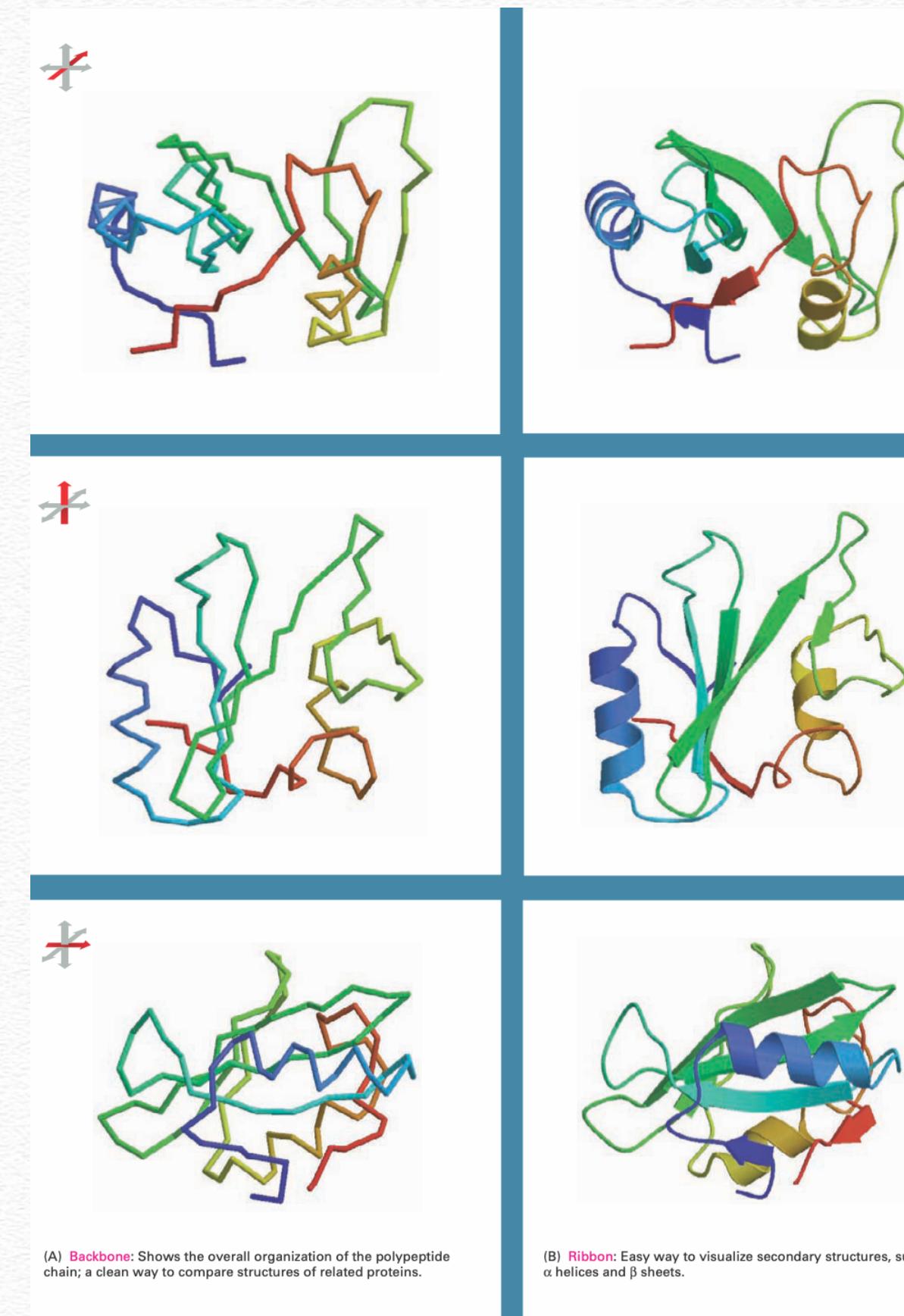
# Proteins



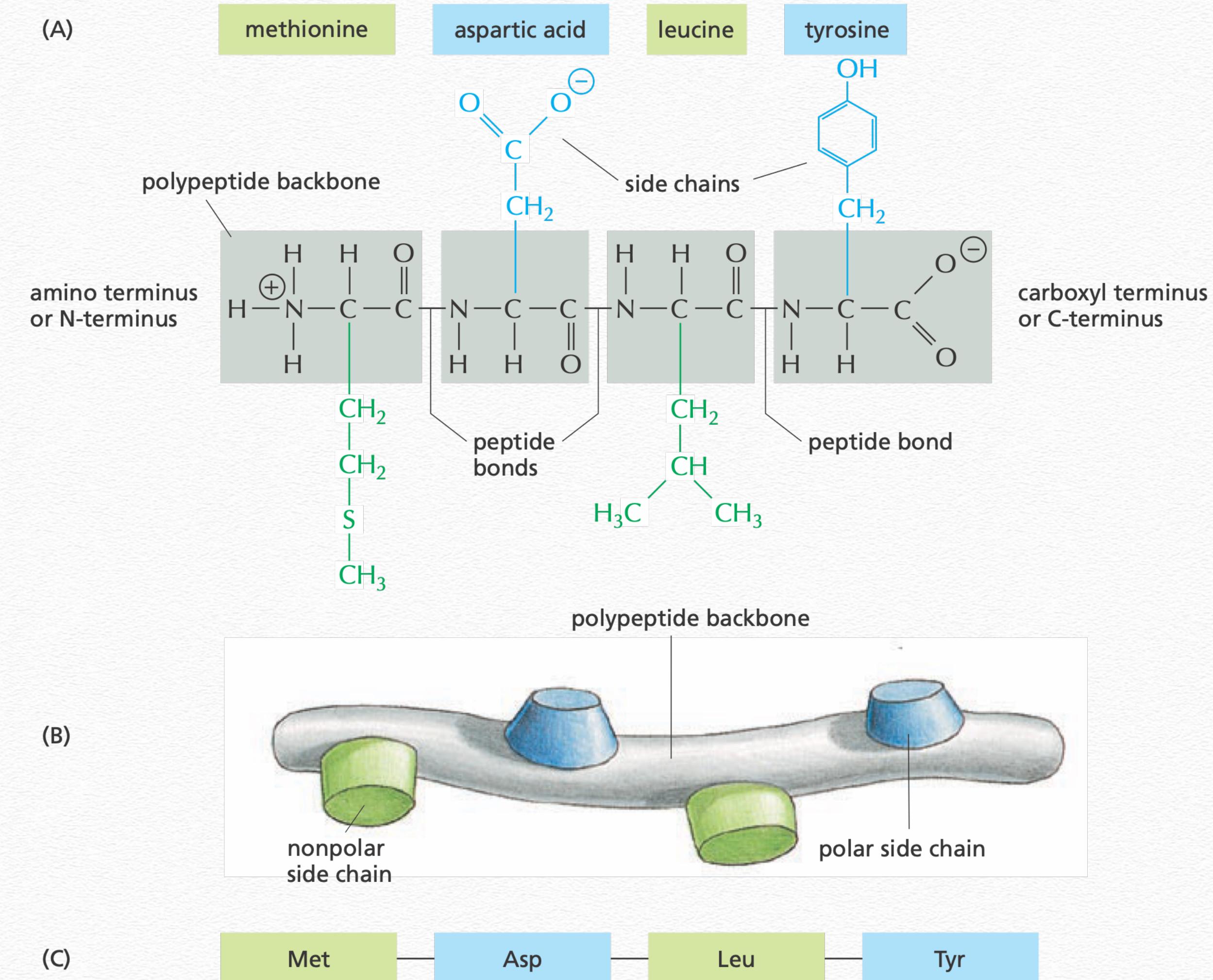
<http://tower.life/wp-content/uploads/2016/06/protein700.jpg>

# Shapes and Sizes

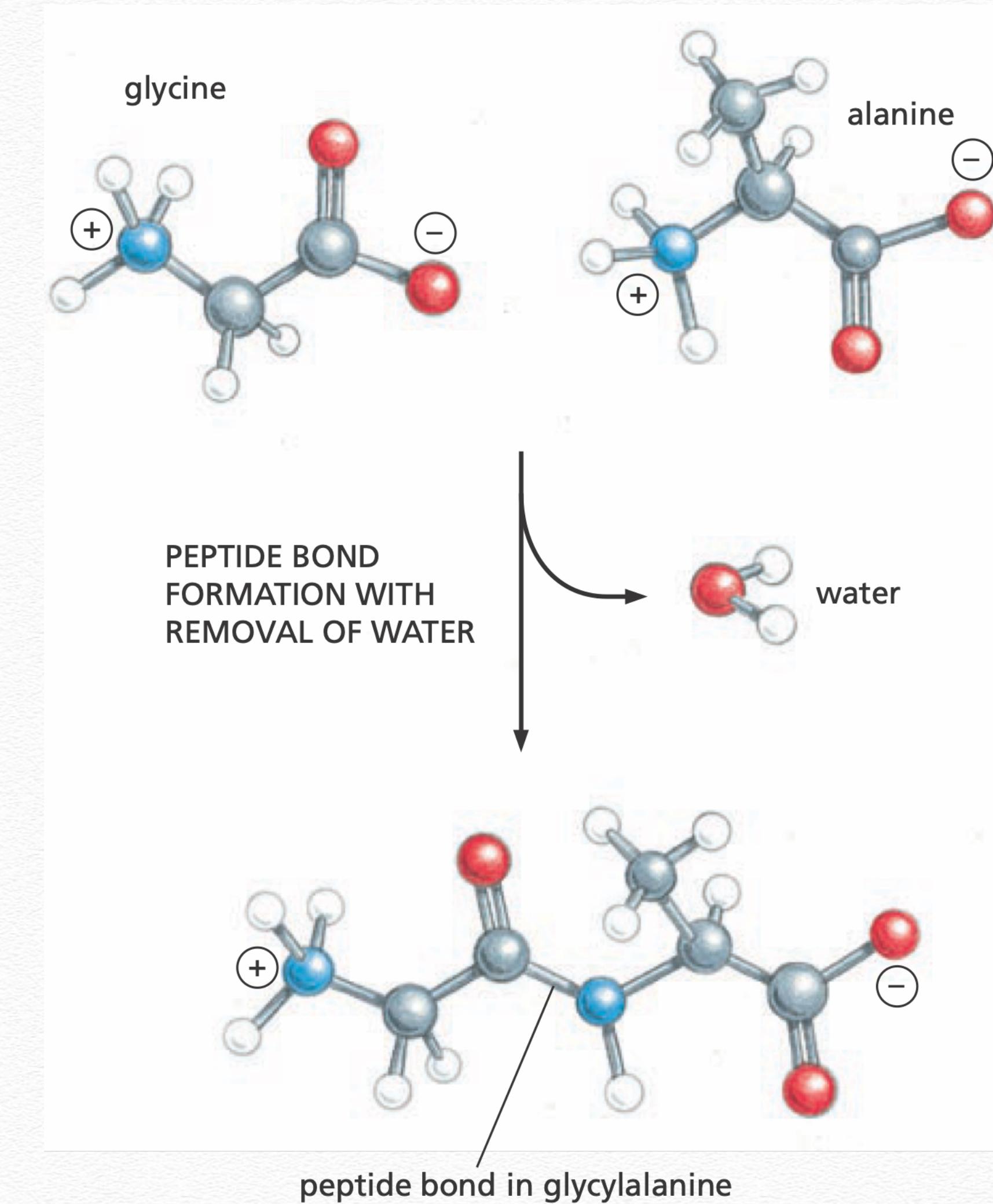




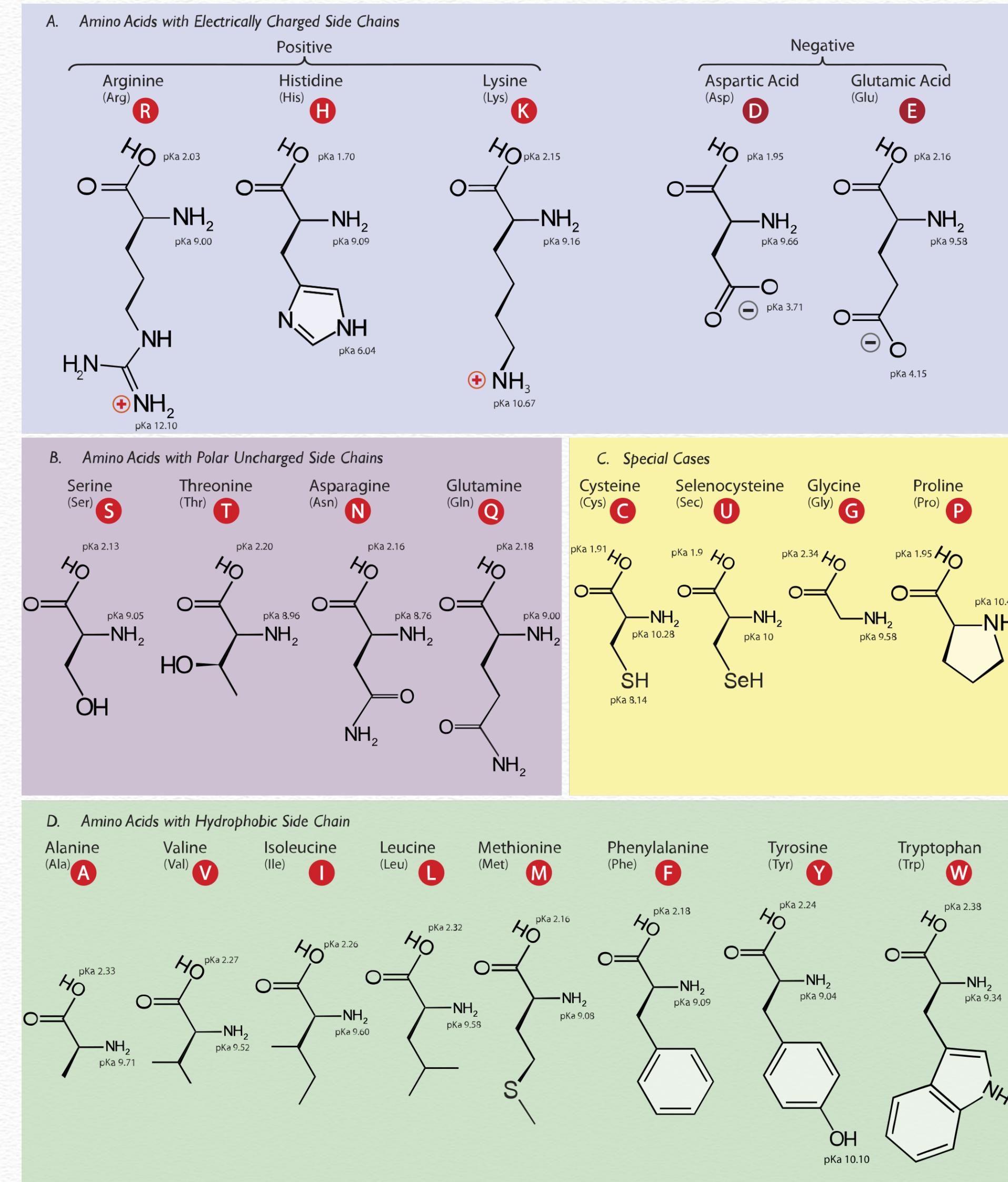
# Protein Structure



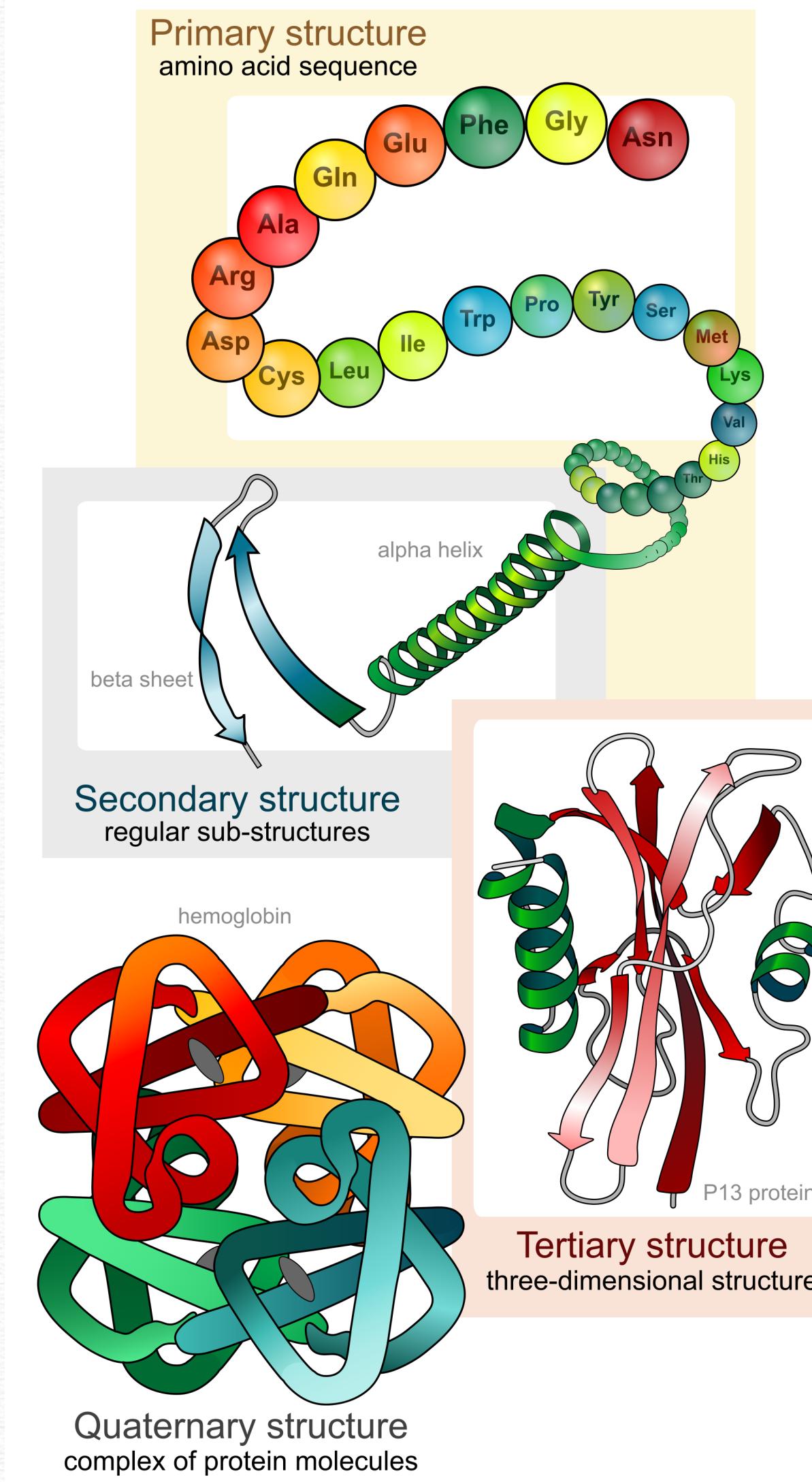
# Peptide Formation



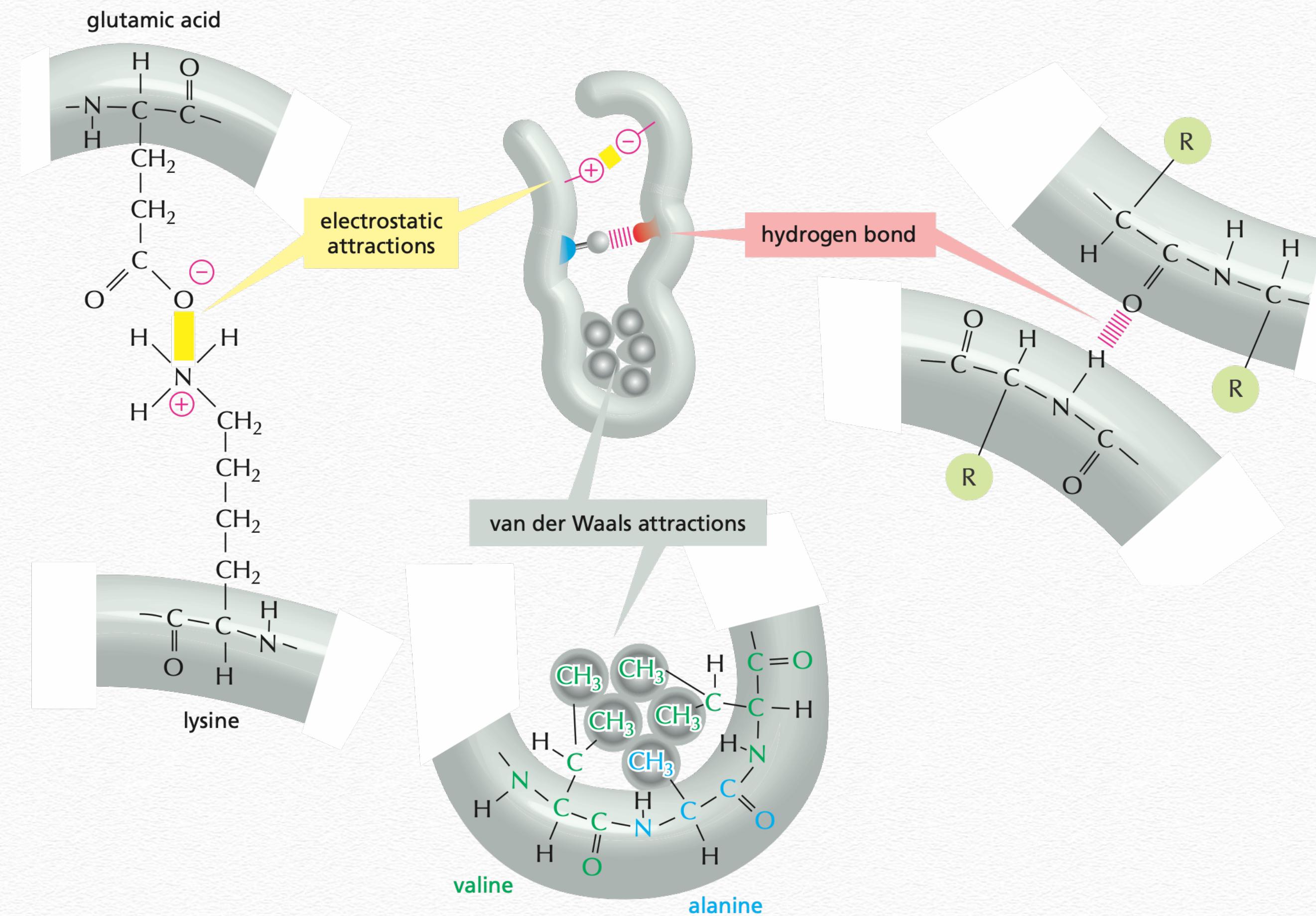
# Amino Acids



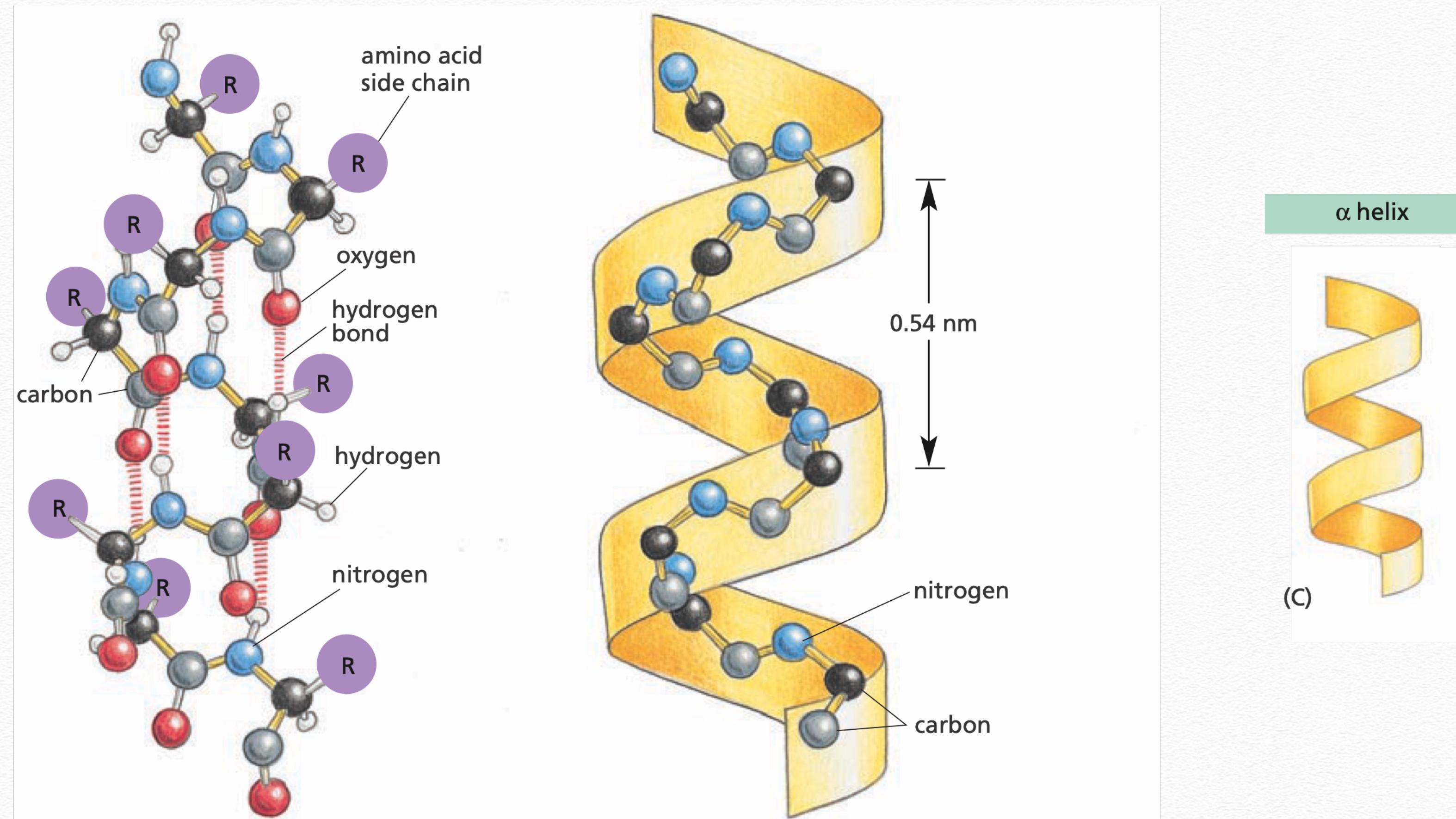
# Protein Structures



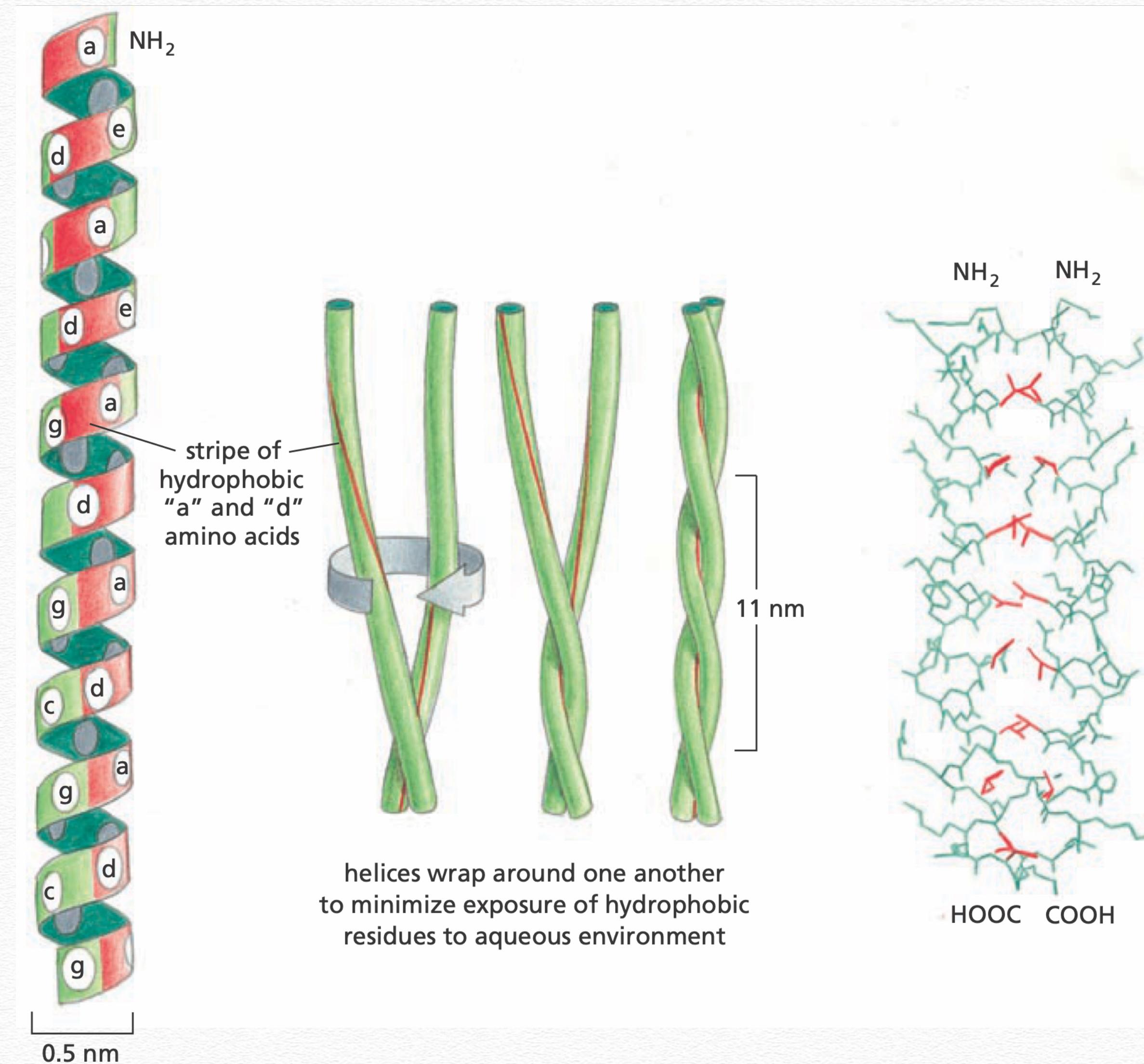
# Non-covalent Bonds



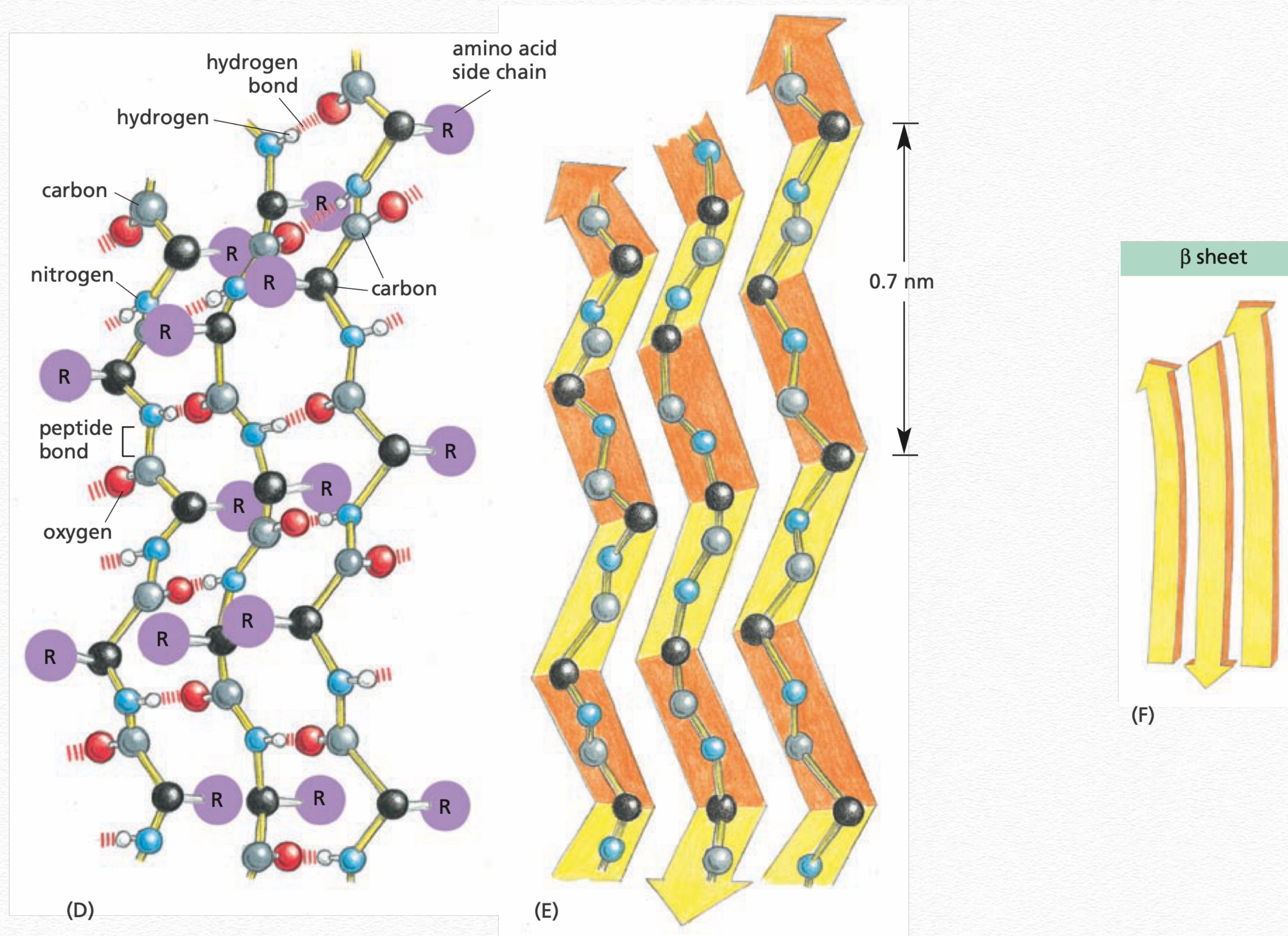
# $\alpha$ -Helix



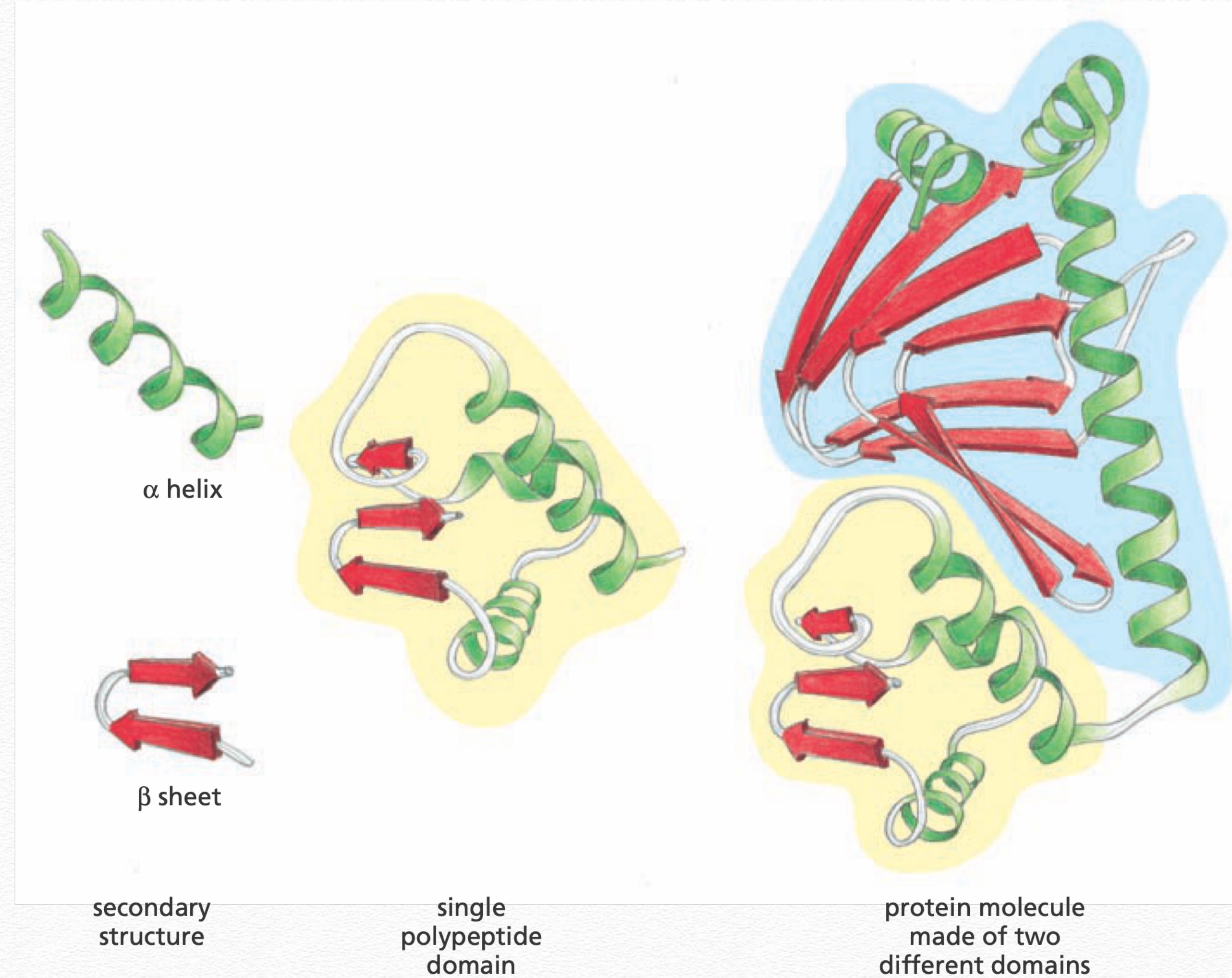
# Coiled-coil Helices



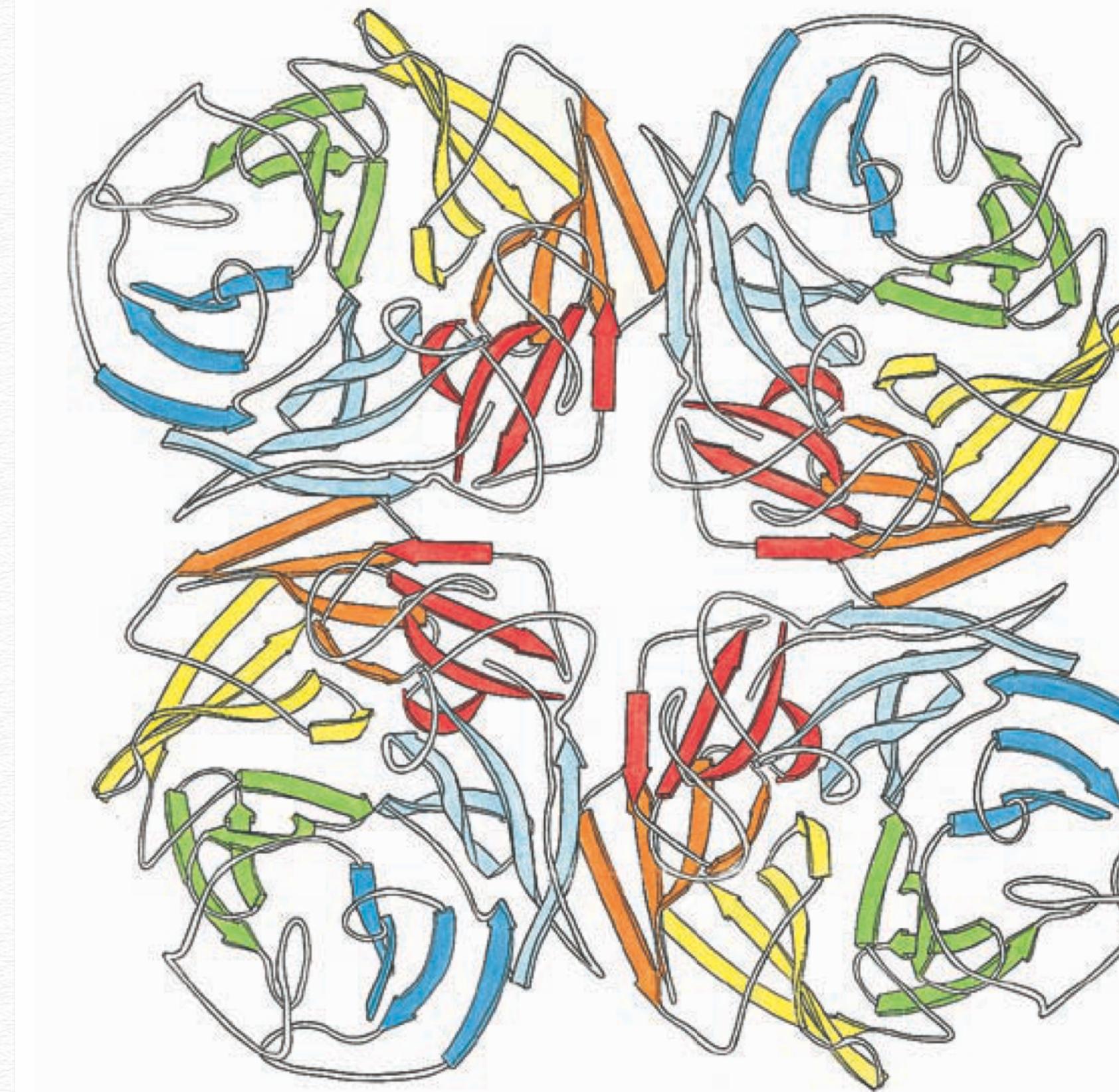
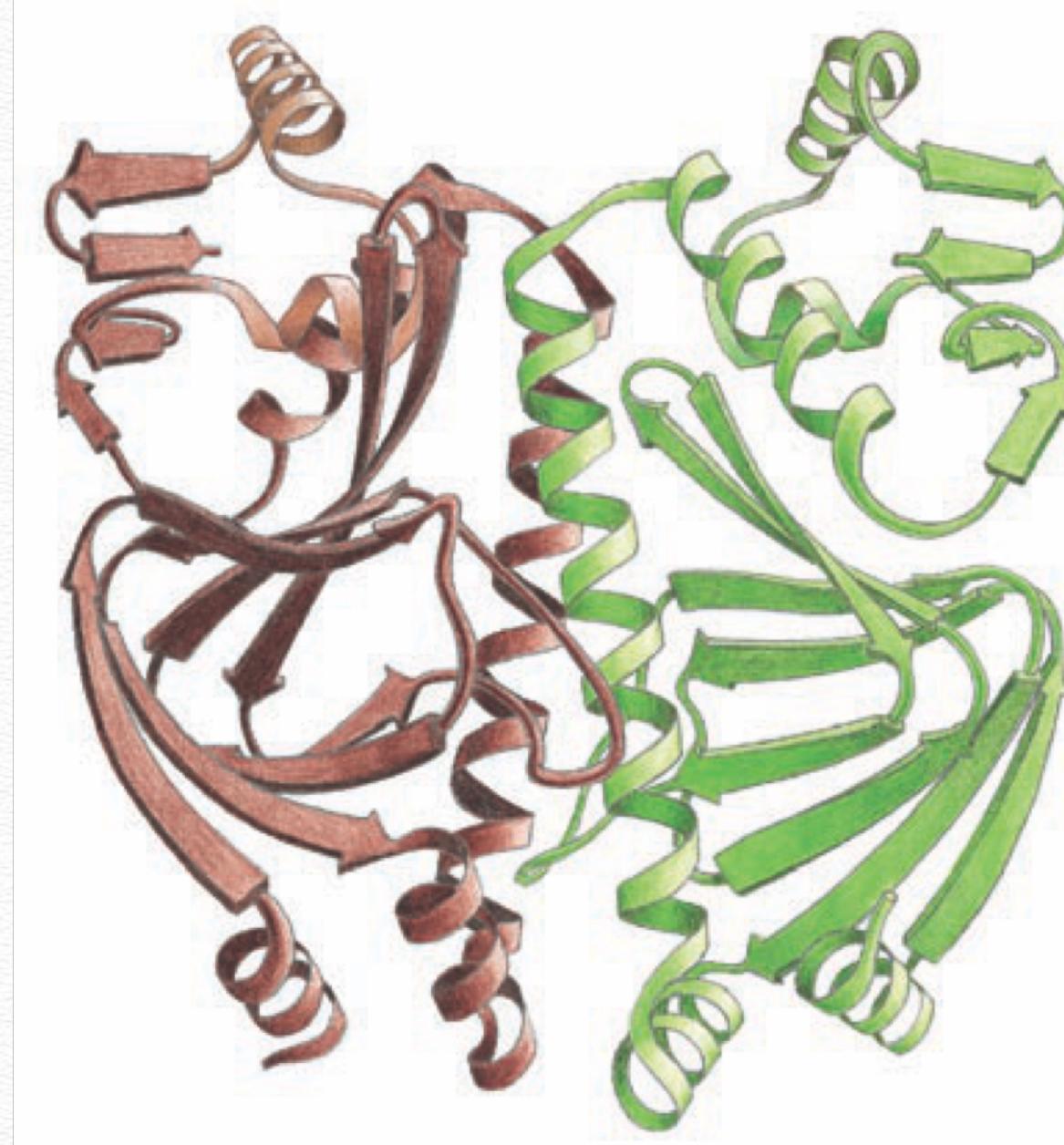
# $\beta$ -Sheet



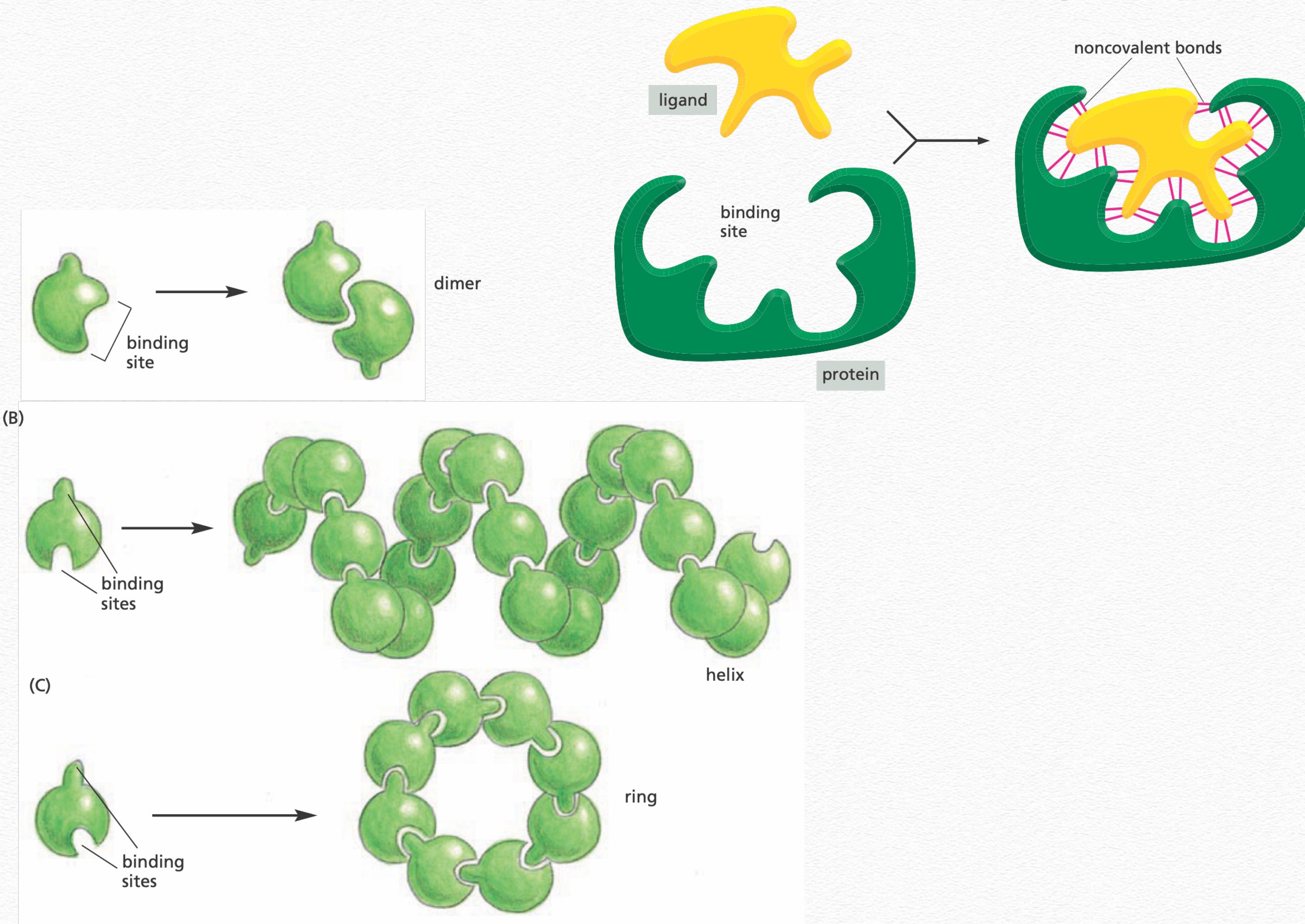
# Different Structures



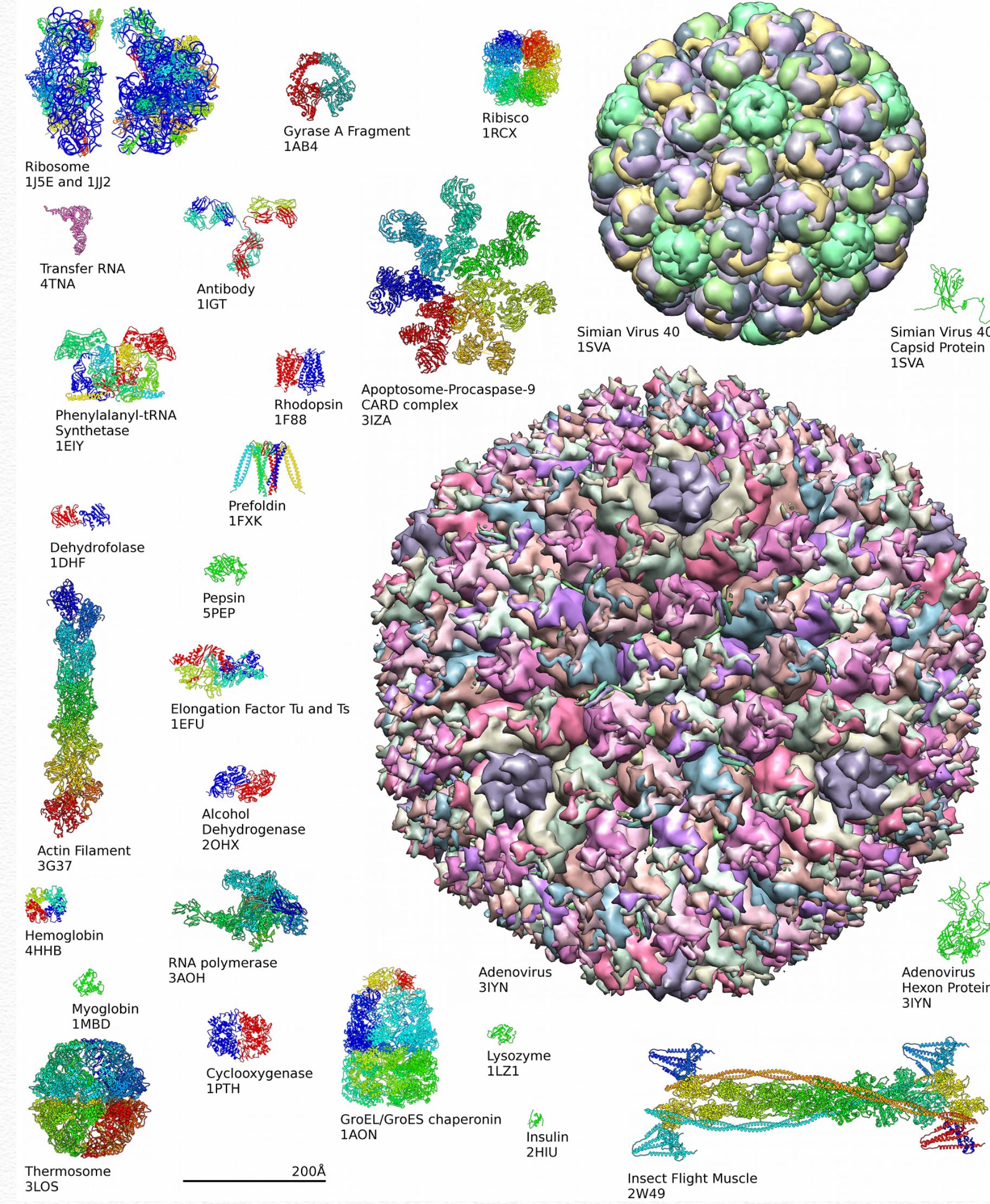
# Repeated Units



# Protein Binding



# Many Different Shapes



# Proteins go On and Off

