#### (13) **Today**

Chap 3: Amino Acids, Peptides, and Proteins Chap 3: Amino Acids, Peptides, and Proteins

Chap 4: Proteins

Chap 4: Proteins

#### (15) Second Class from Today

Test Chap 1 (skipping 1.4) Chap 2, and Chap 3.1 - 3.1.8, 3.2.1

Third Class from Today (16)

Chap 4

Today's Office Hours are canceled. I have an on-campus meeting.

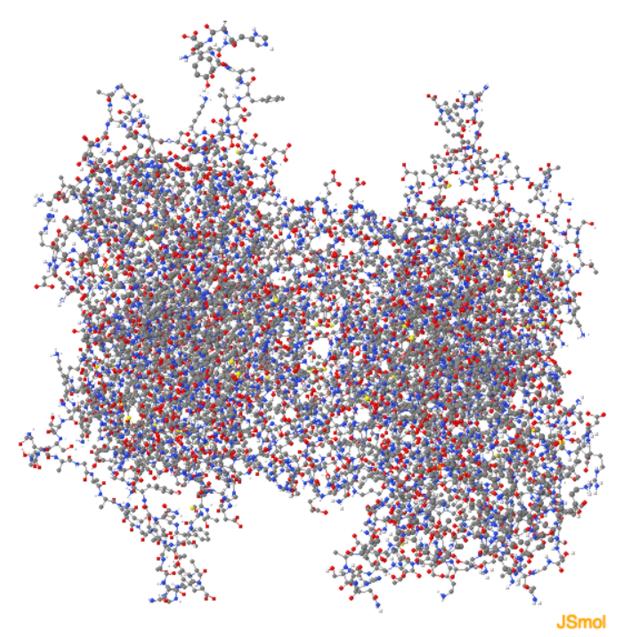
Biochem Test 1 on Wed. Feb 26, one week from today Chap 1 (skipping 1.4) Chap 2, and Chap 3.1 - 3.2.1

On-line review session, Tuesday Feb 25 from 7:30 to 9:00 at the regular class URL. I will send a new email with the link.

#### Next Class (14)

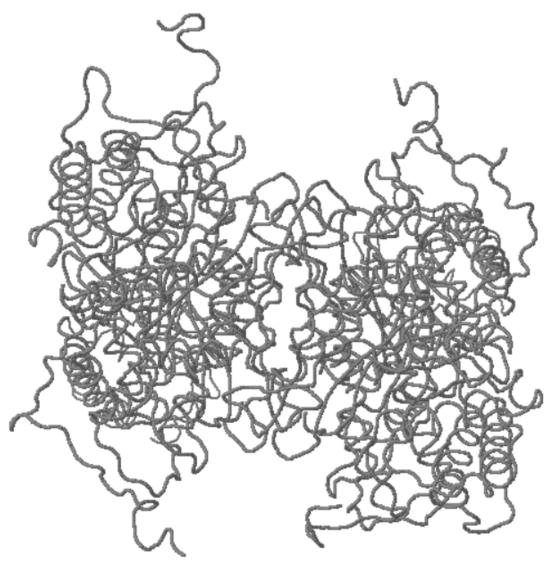
Structure Function: <u>https://www.westfield.ma.edu/cmasi/biochem/2ndary\_struct/structure-functn-plain.html</u>

Examine the model and explain how the structure of the protein/the location of the various types of amino acids make it possible for this protein to play the role of a potassium ion channel.



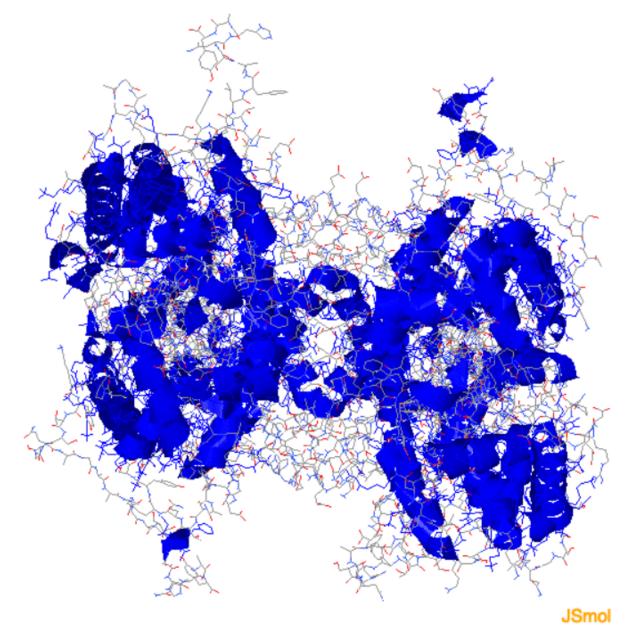
Protein Structure: Backbone trace

Section 3.2 and Chap 4



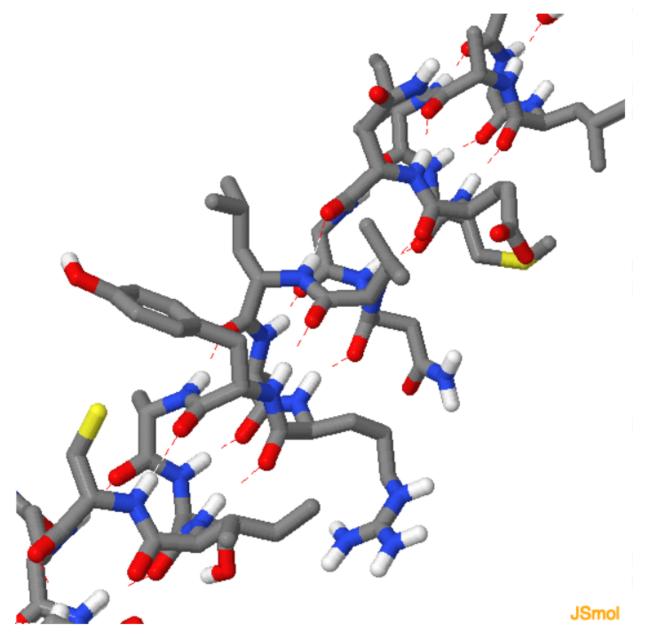
**JSmol** 

# Section 3.2 and Chap 4



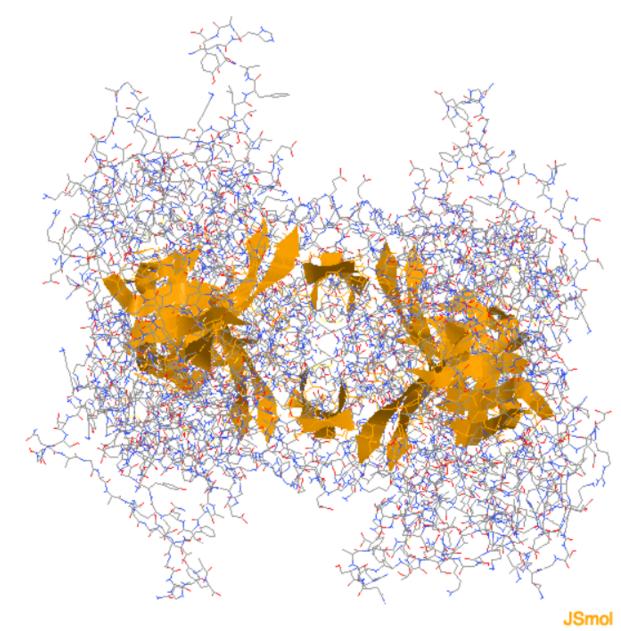
#### Protein Structure: H-Bonds in α-Helices

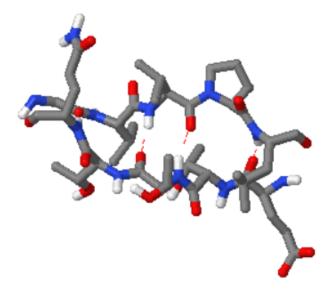
# Section 3.2 and Chap 4



# Section 3.2 and Chap 4

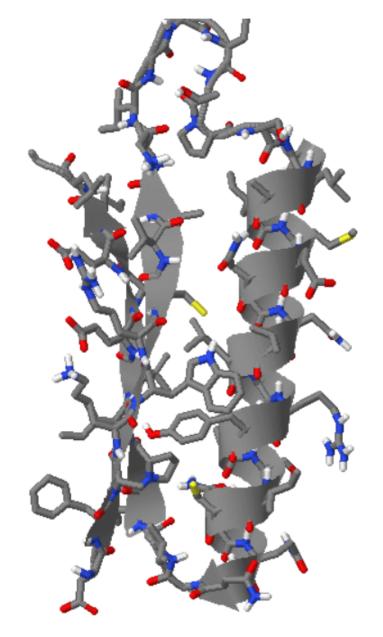
# Protein Structure: $\beta$ -Strans and $\beta$ -Sheets





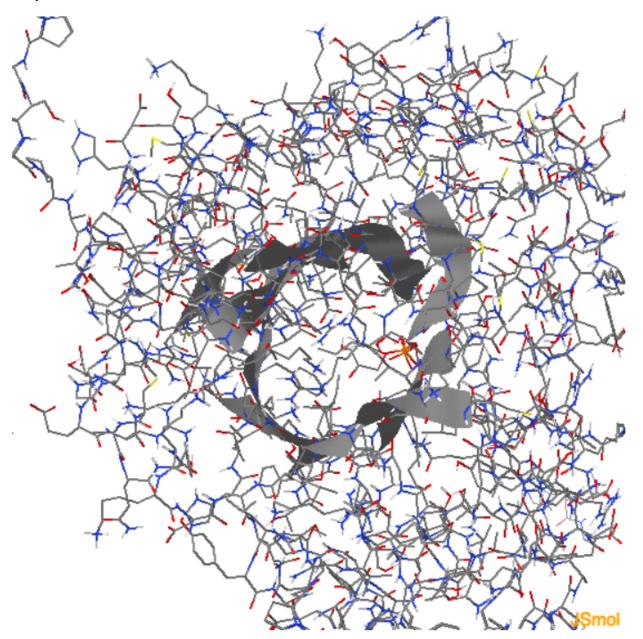
**JSmol** 

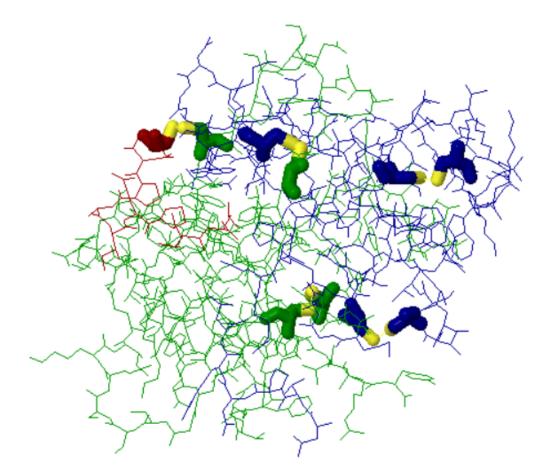
# Section 3.2 and Chap 4



**JSmol** 

# Protein Structure: A β-Barrel



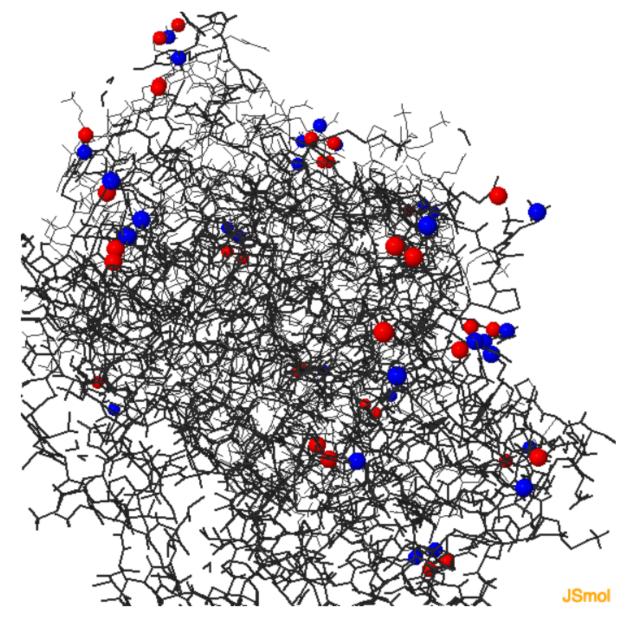


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bovine  $\gamma$ -chymotrypsin complexed with D-leucyl-L-phenylalanyl-P-fluorobenzylamide, an inhibitor of chymotripsin downloaded from https://www.rcsb.org/structure/1AFQ

#### Protein Structure: Salt Bridges

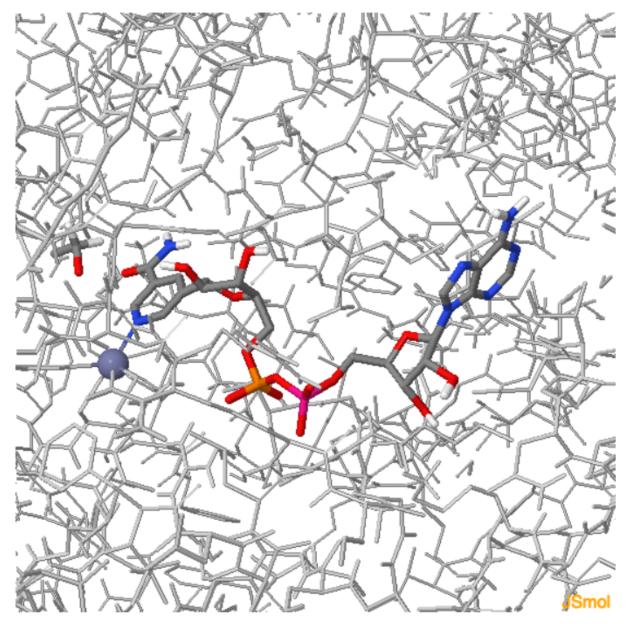
#### Section 3.2 and Chap 4



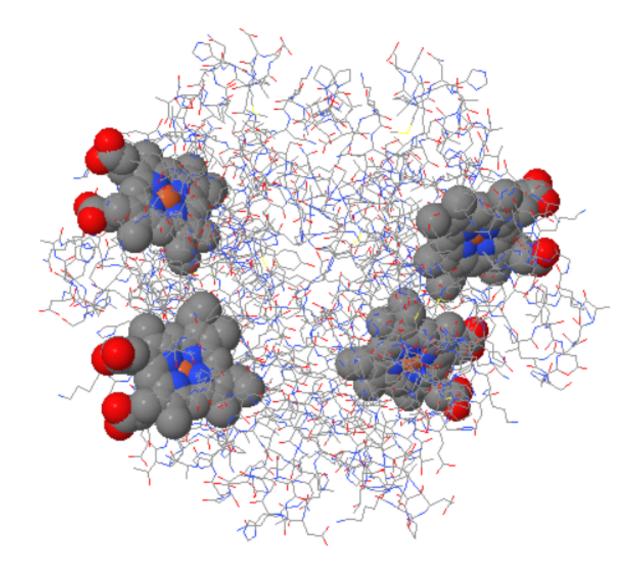
horse alcohol dehydrogenase complexed with 5-β-ribofuranosylnicotinamide adenine dinucleotide, an inhibitor of alcohol dehydrogenase downloaded from https://www.rcsb.org/structure/1ADB

#### Protein Structure: Cofactors and Coenzymes

# Section 3.2 and Chap 4



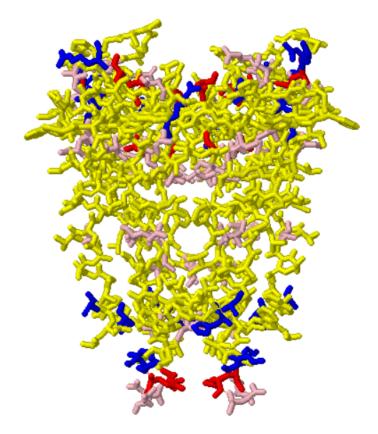
horse alcohol dehydrogenase complexed with 5-β-ribofuranosylnicotinamide adenine dinucleotide, an inhibitor of alcohol dehydrogenase downloaded from https://www.rcsb.org/structure/1ADB

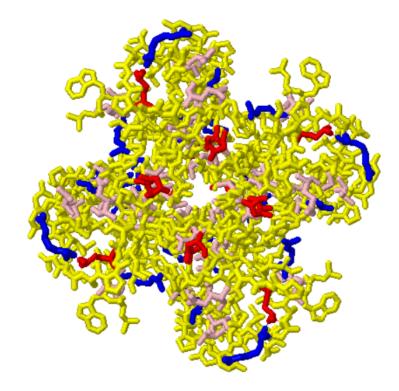


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#### **Protein Structure**

Explore secondary, tertiary, and quaternary structure on models in the website.





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potassium ion channel from streptomyces lividans downloaded from https://www.rcsb.org/structure/1BL8 potassium ion channel from streptomyces lividans downloaded from https://www.rcsb.org/structure/1BL8

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