

Figure 12-42 Molecular Biology of the Cell (© Garland Science 2008)

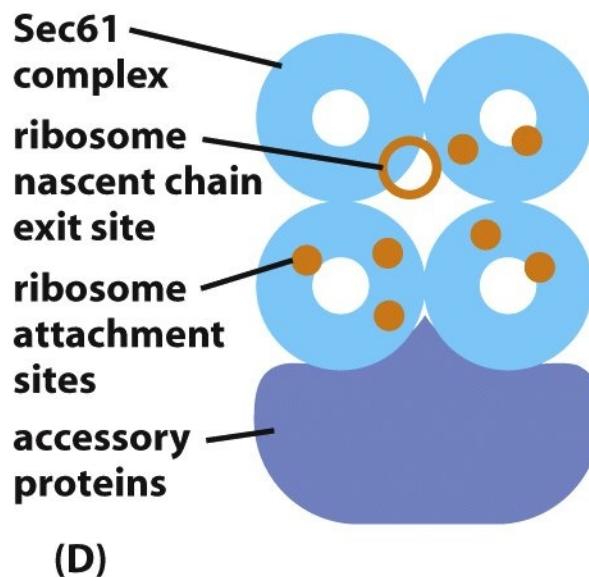
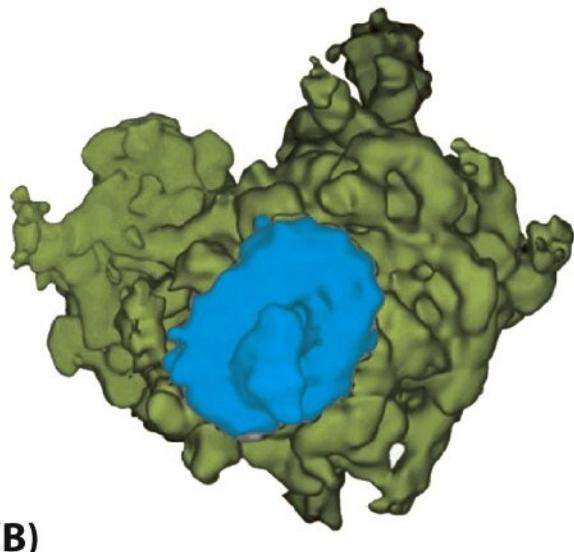
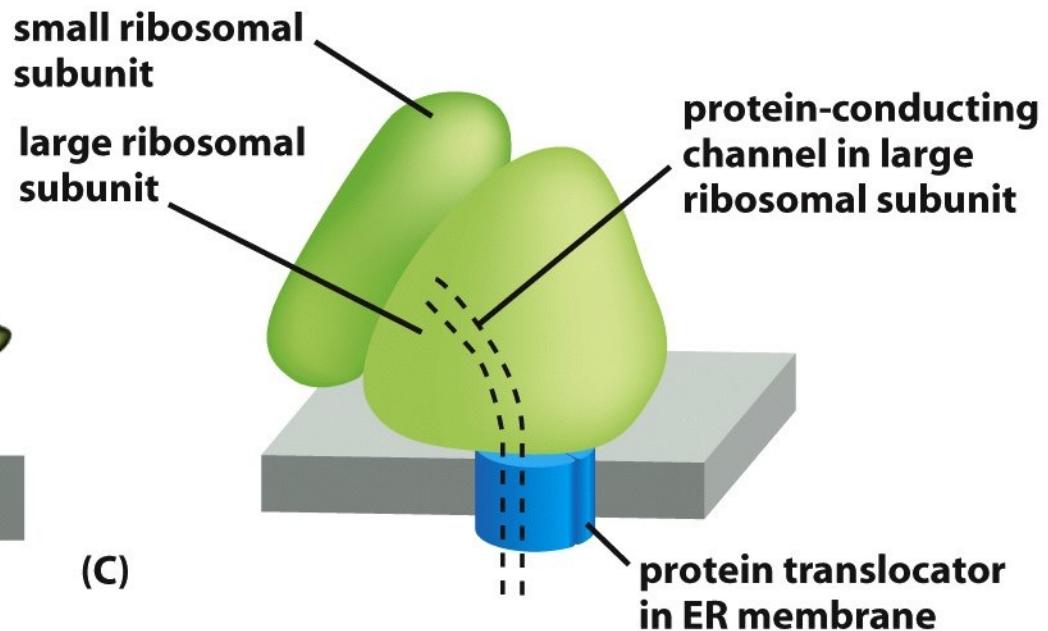
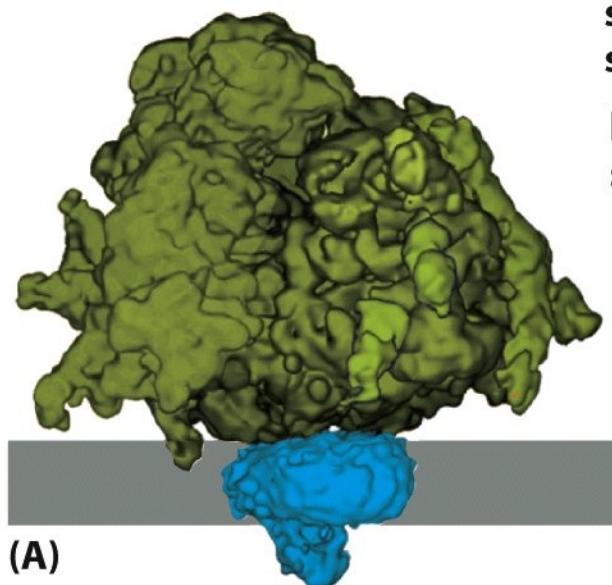
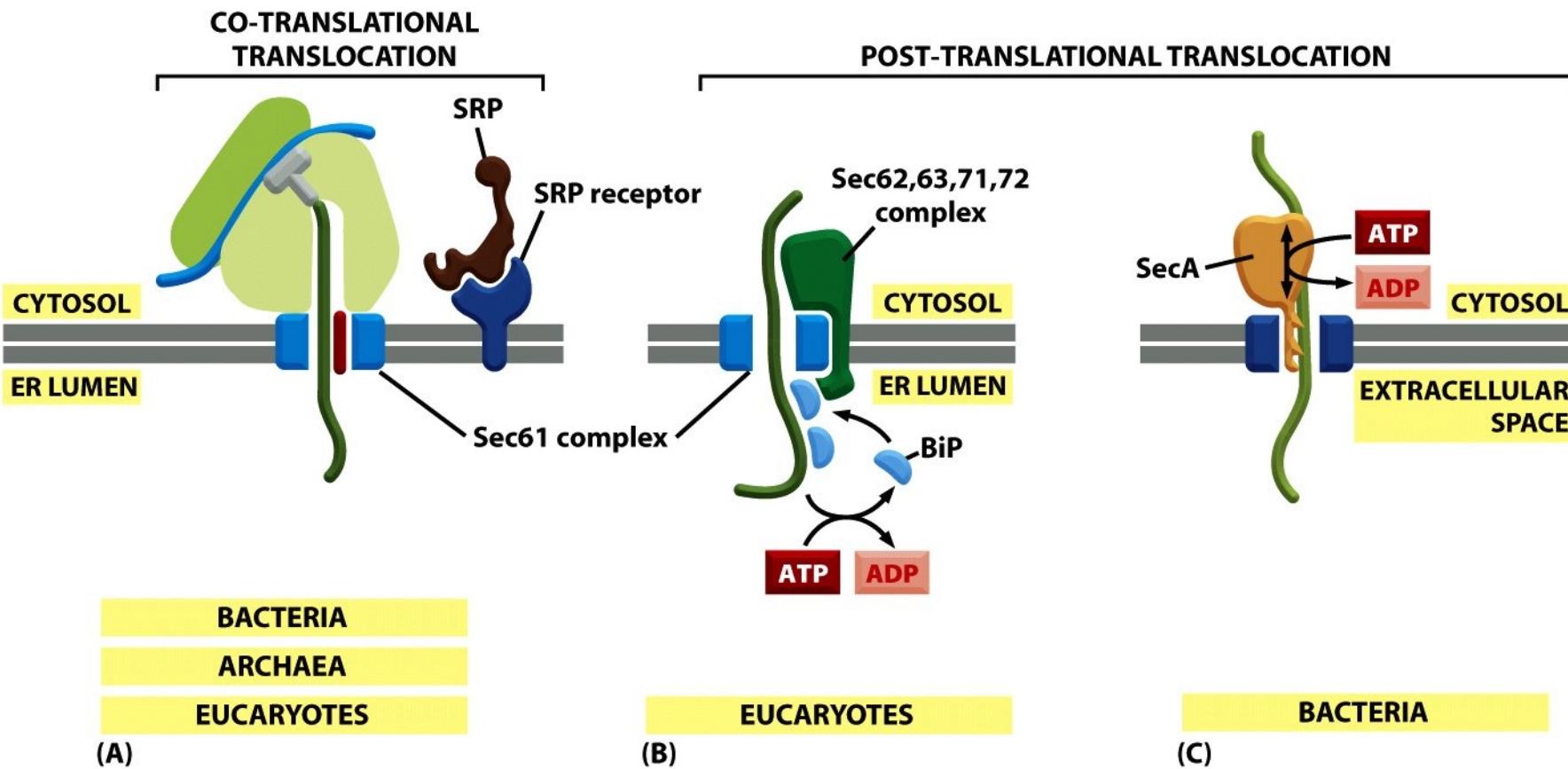
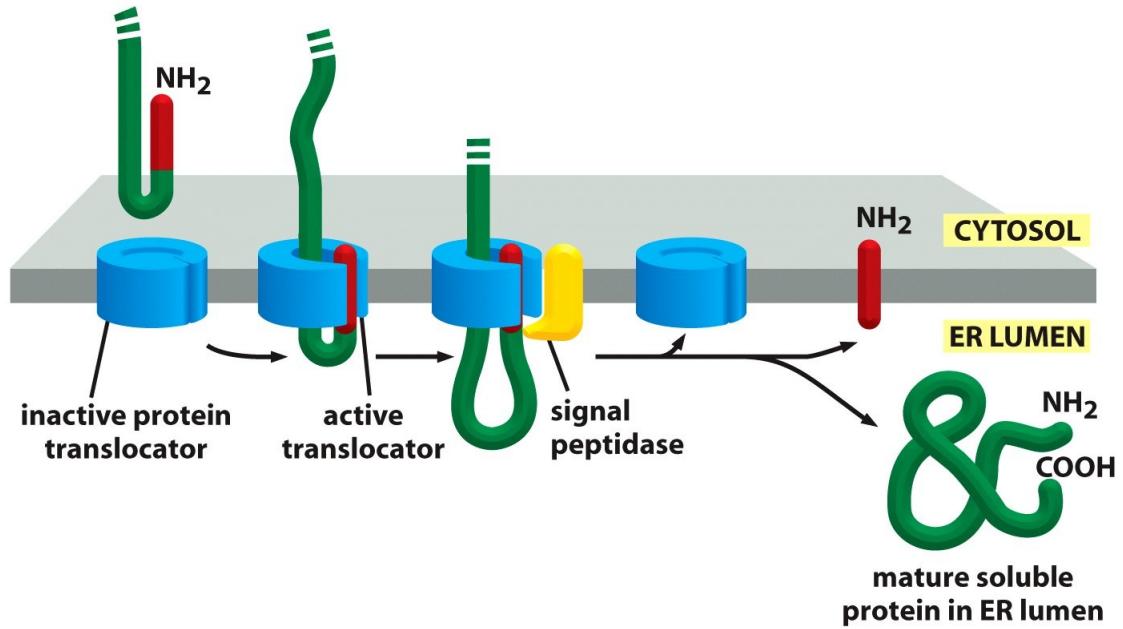


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ER sinyal dizisi transporttan sonra çıkarılır



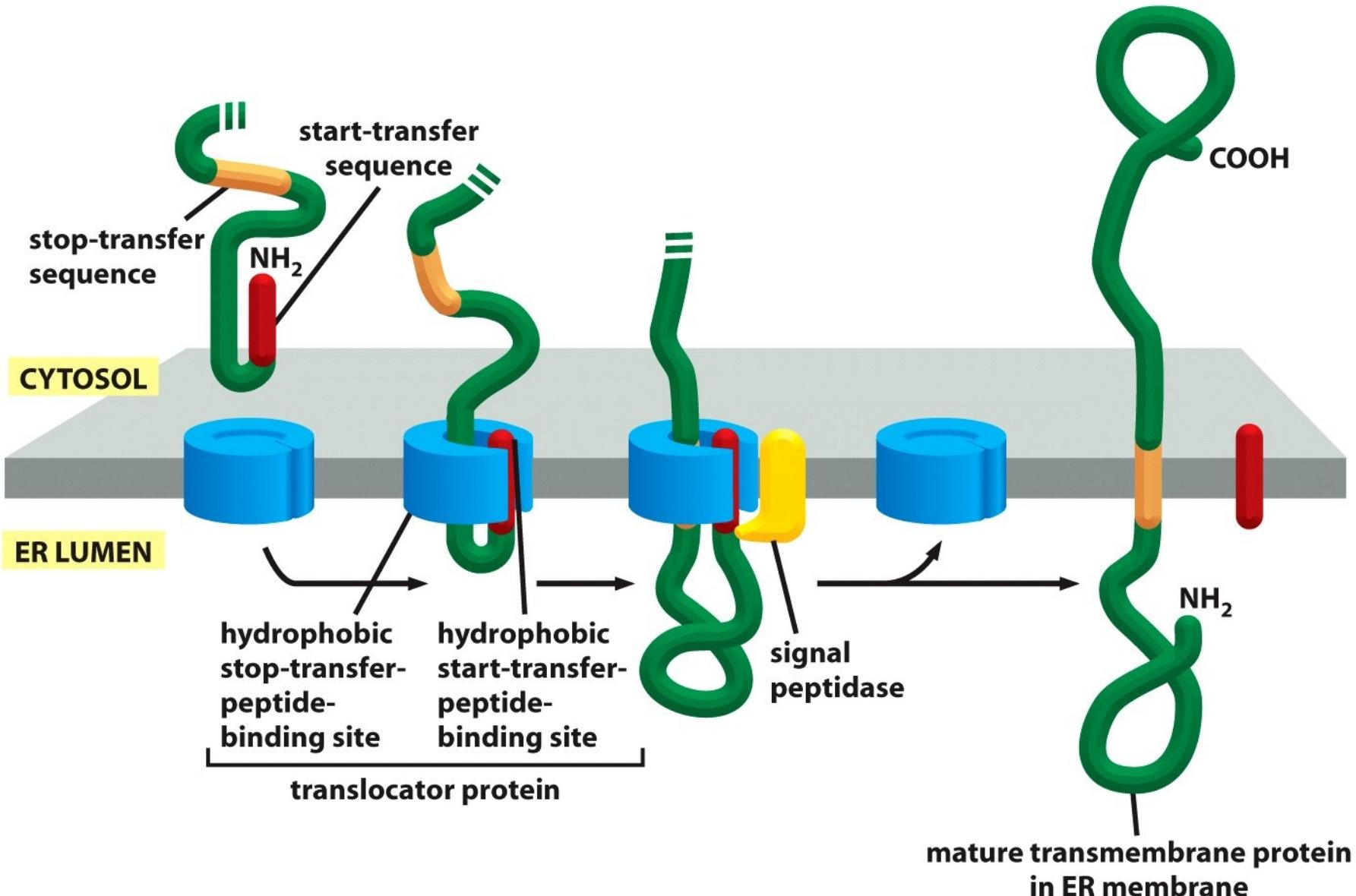


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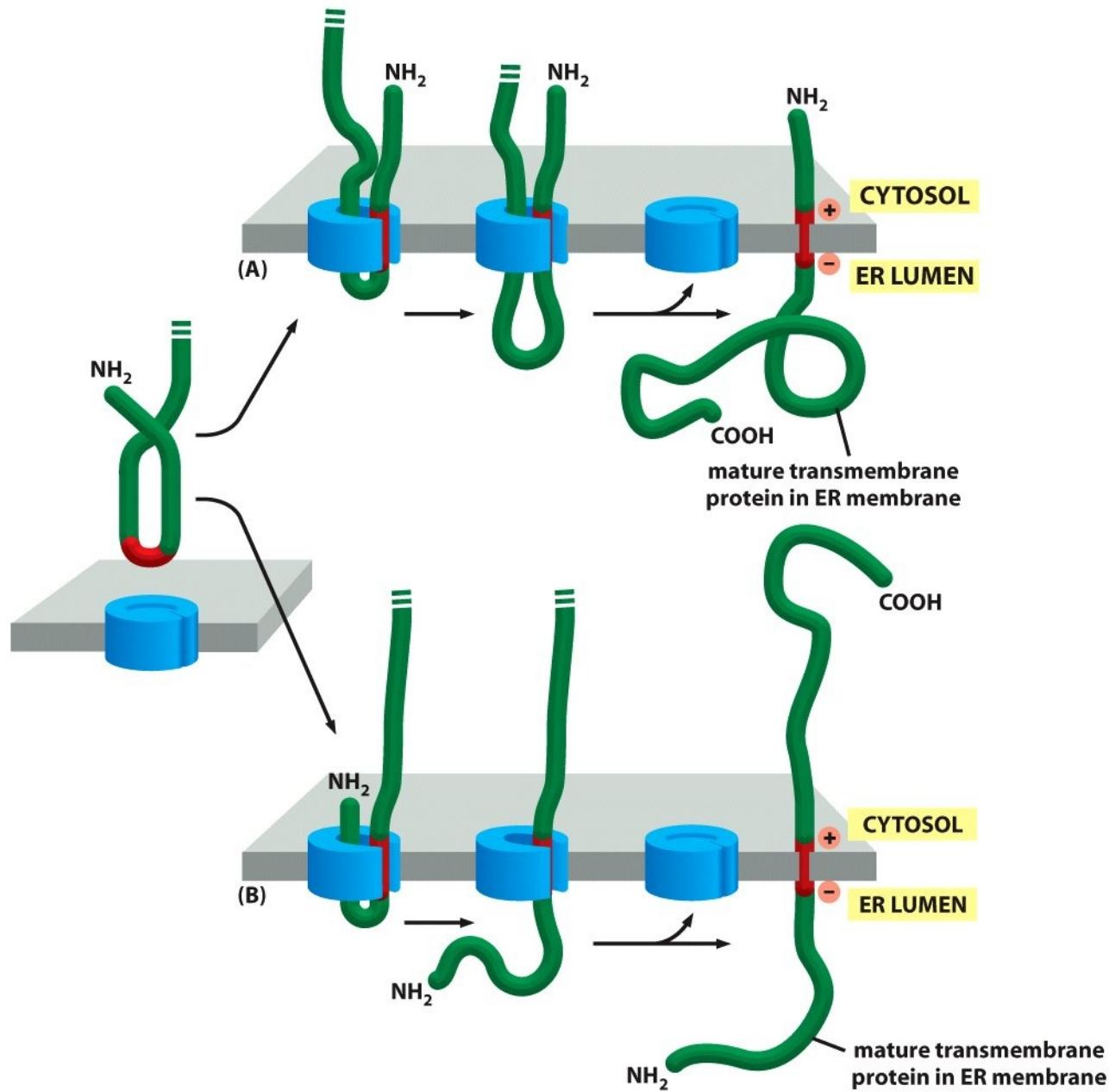
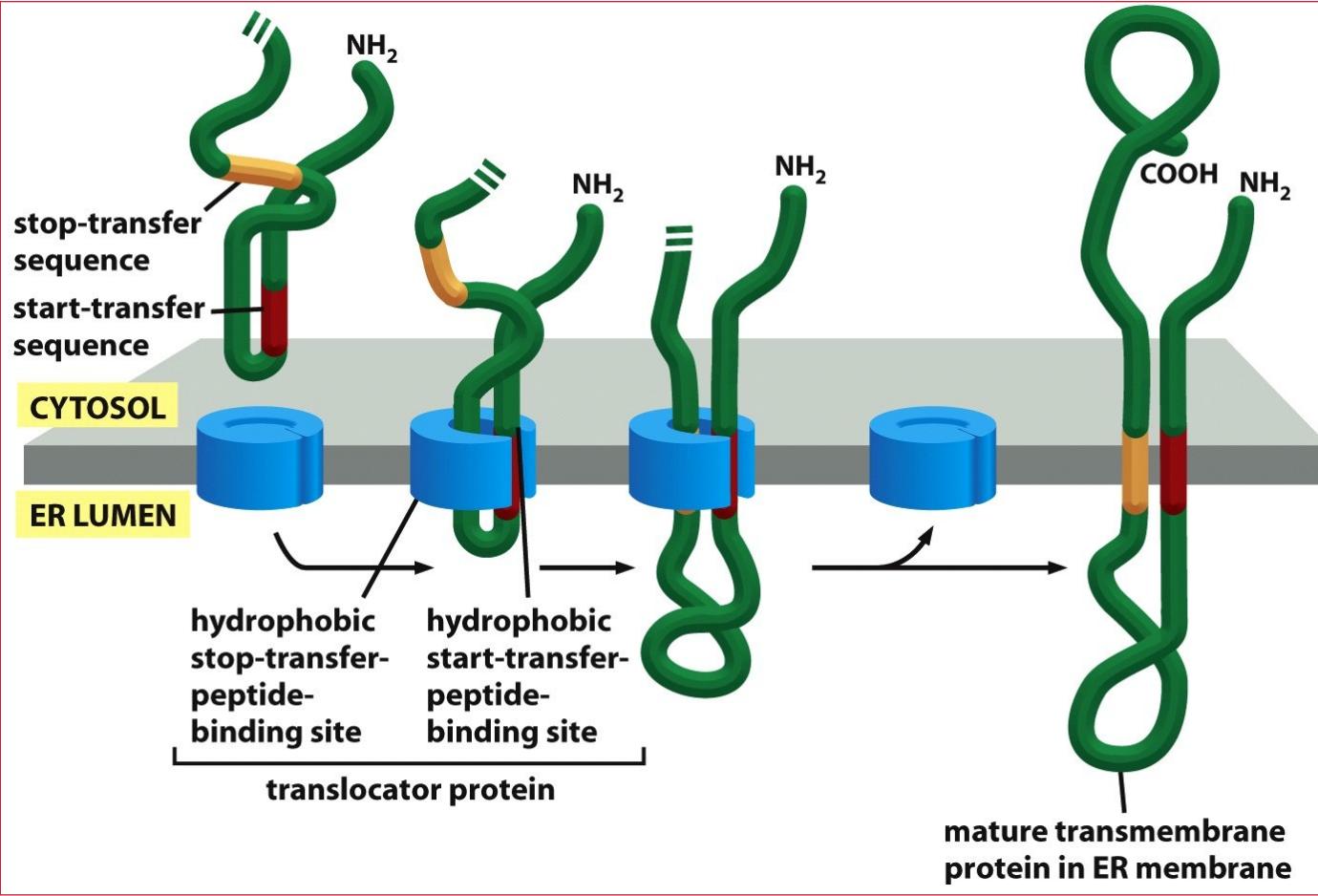


Figure 12-47 Molecular Biology of the Cell (© Garland Science 2008)



Yerleşim gerçekleştiğinden sonra Protein disülfit izomeraz tarafından serbest sülfidril gruplarının yük

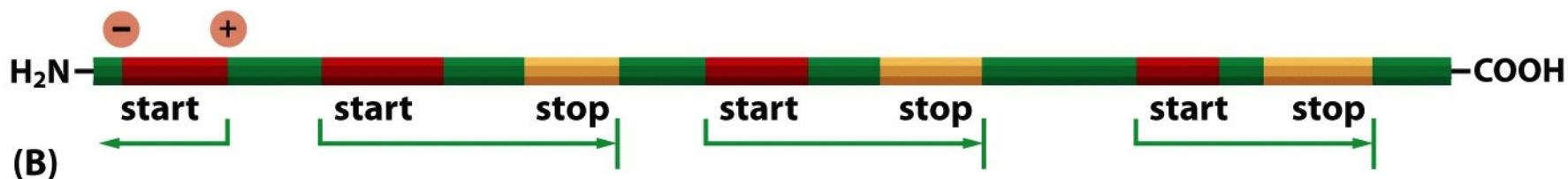
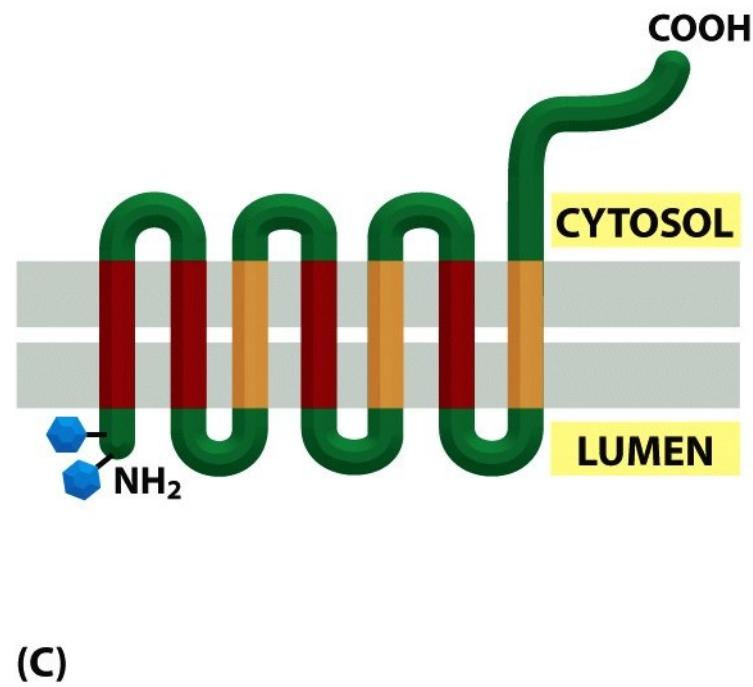
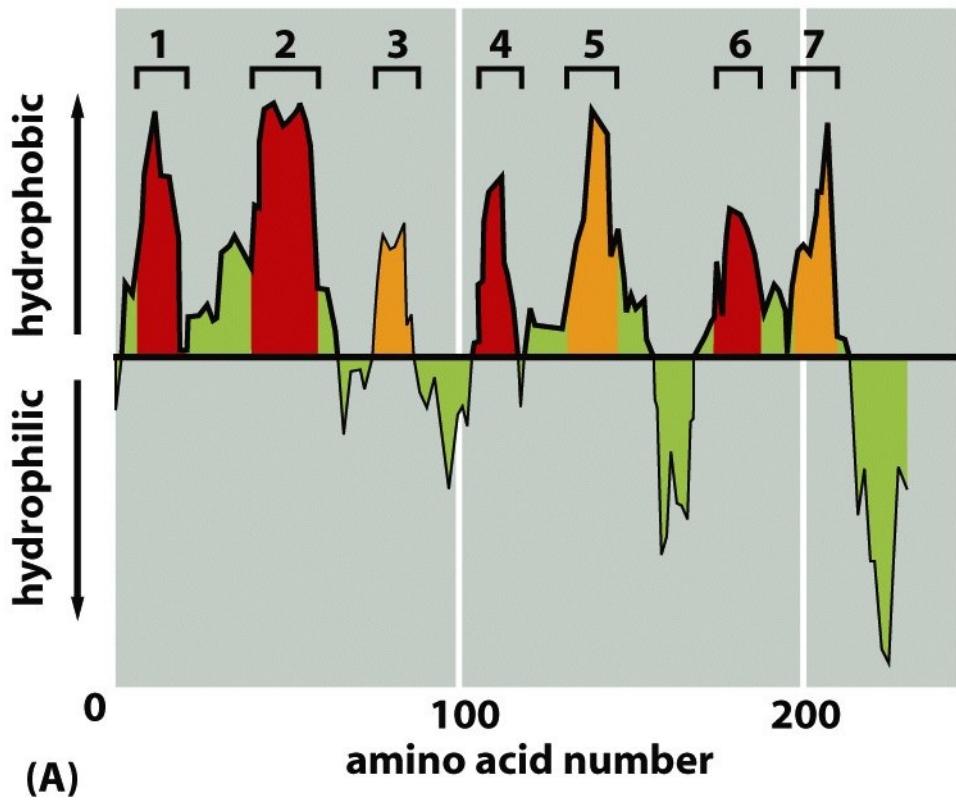
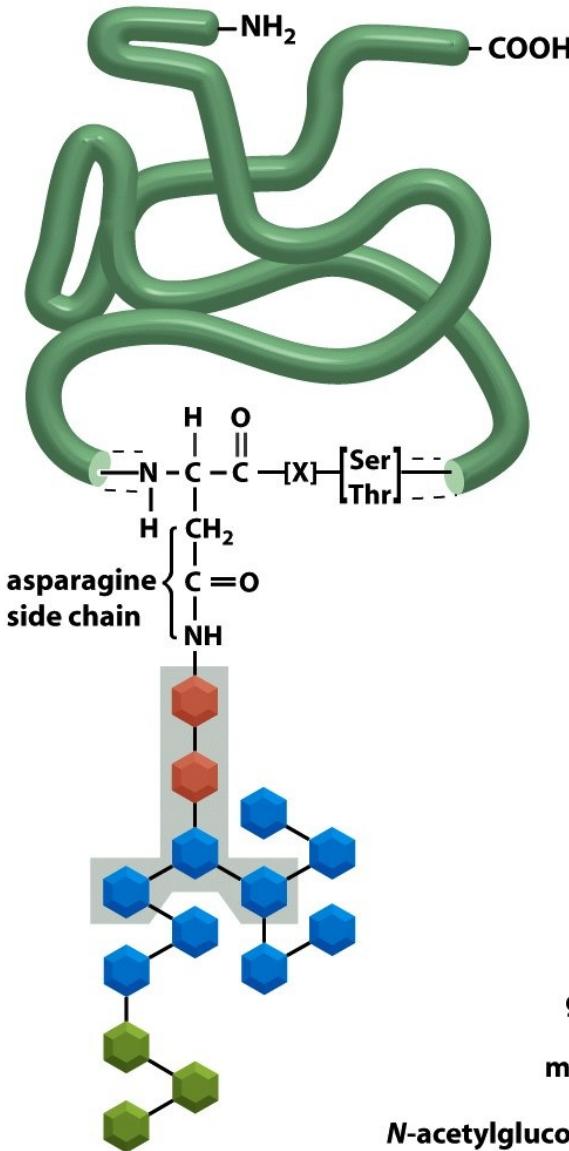
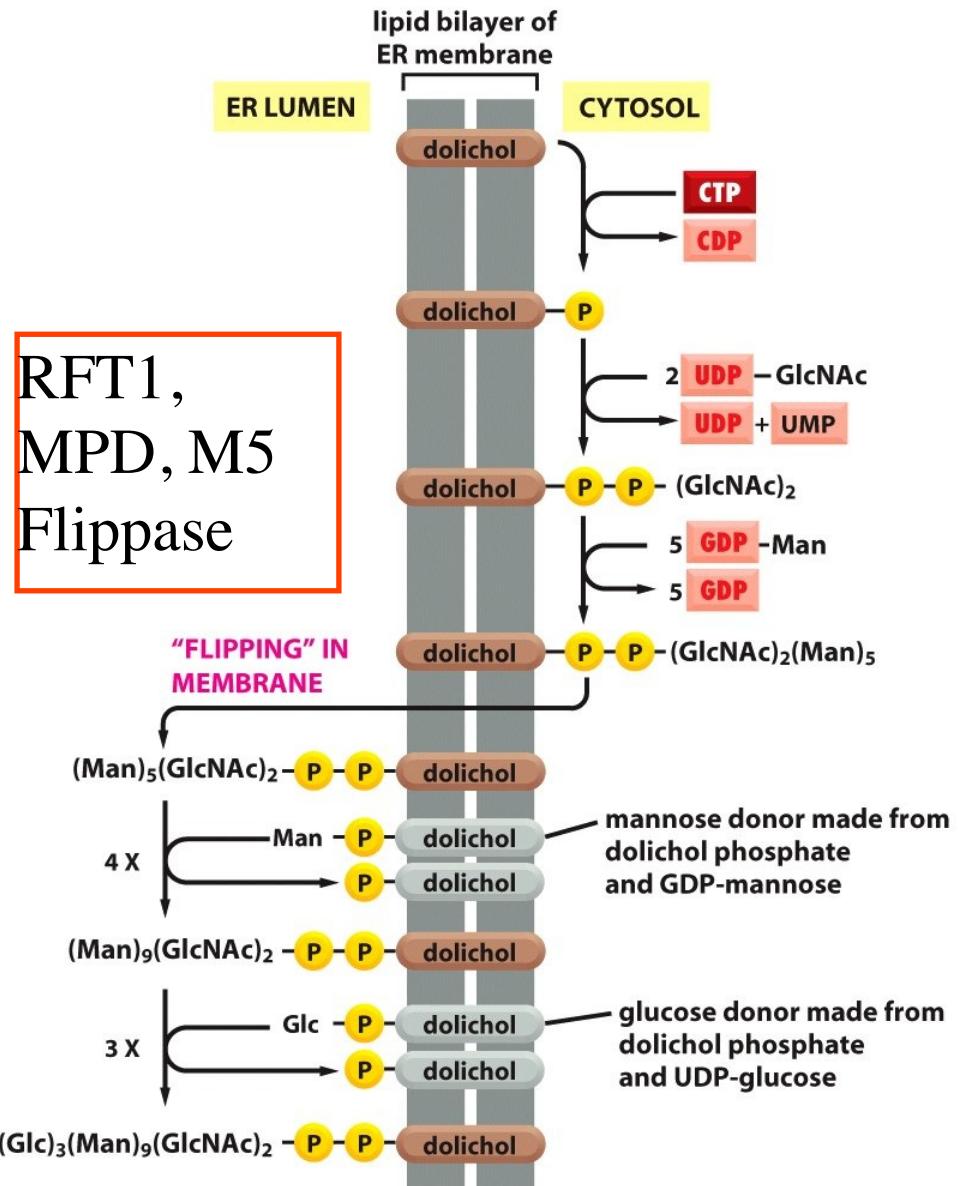
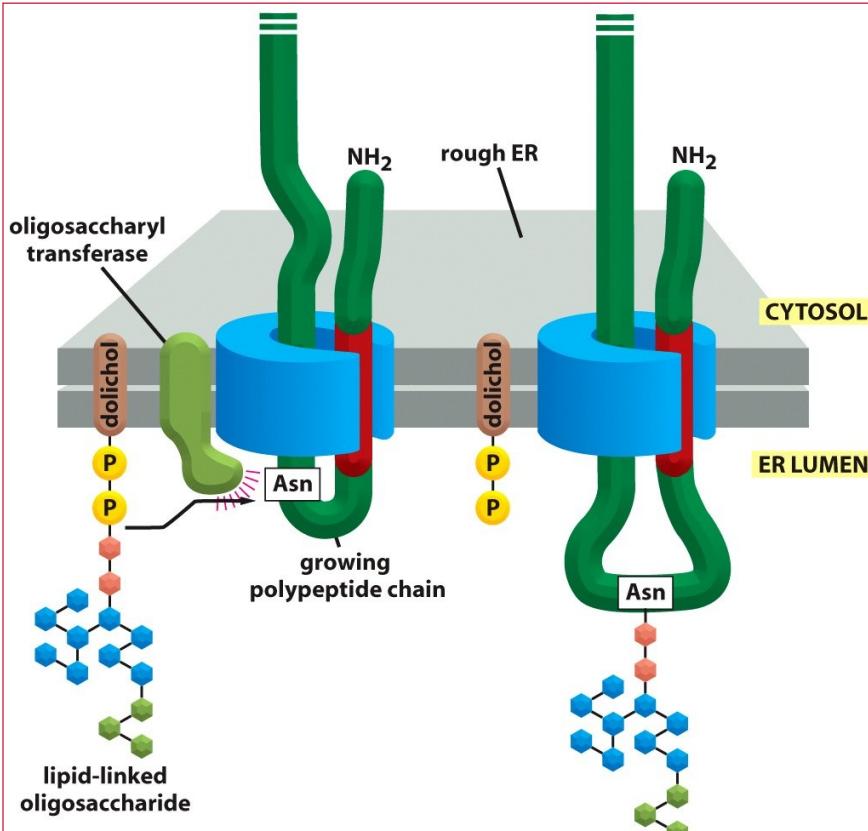


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Proteinlere şekerlerin kovalan olarak eklenmesi ER'da gerçekleşir. Golgiye, plazma zarına ve diğer organellere gönderilenler glikoproteinlerdir. Sitozolde kalanların ise Serin yada treonin gruplarına N-asetilglukozamin takılır. ER lümeninde yerleşik olan Oligosakkarit transferaz tarafından takılır, bu yüzden sitozol tarafları glikozillenmez.



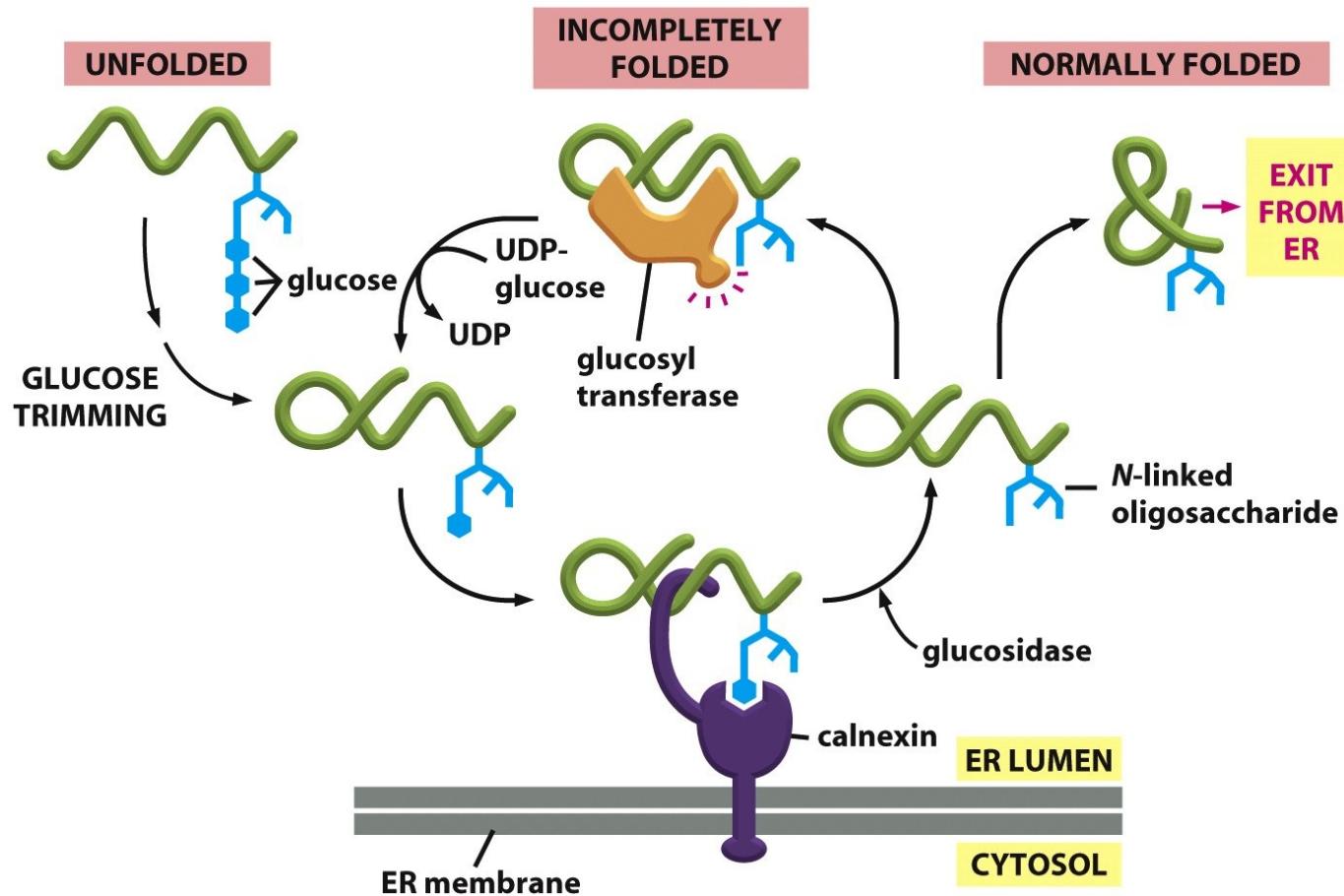


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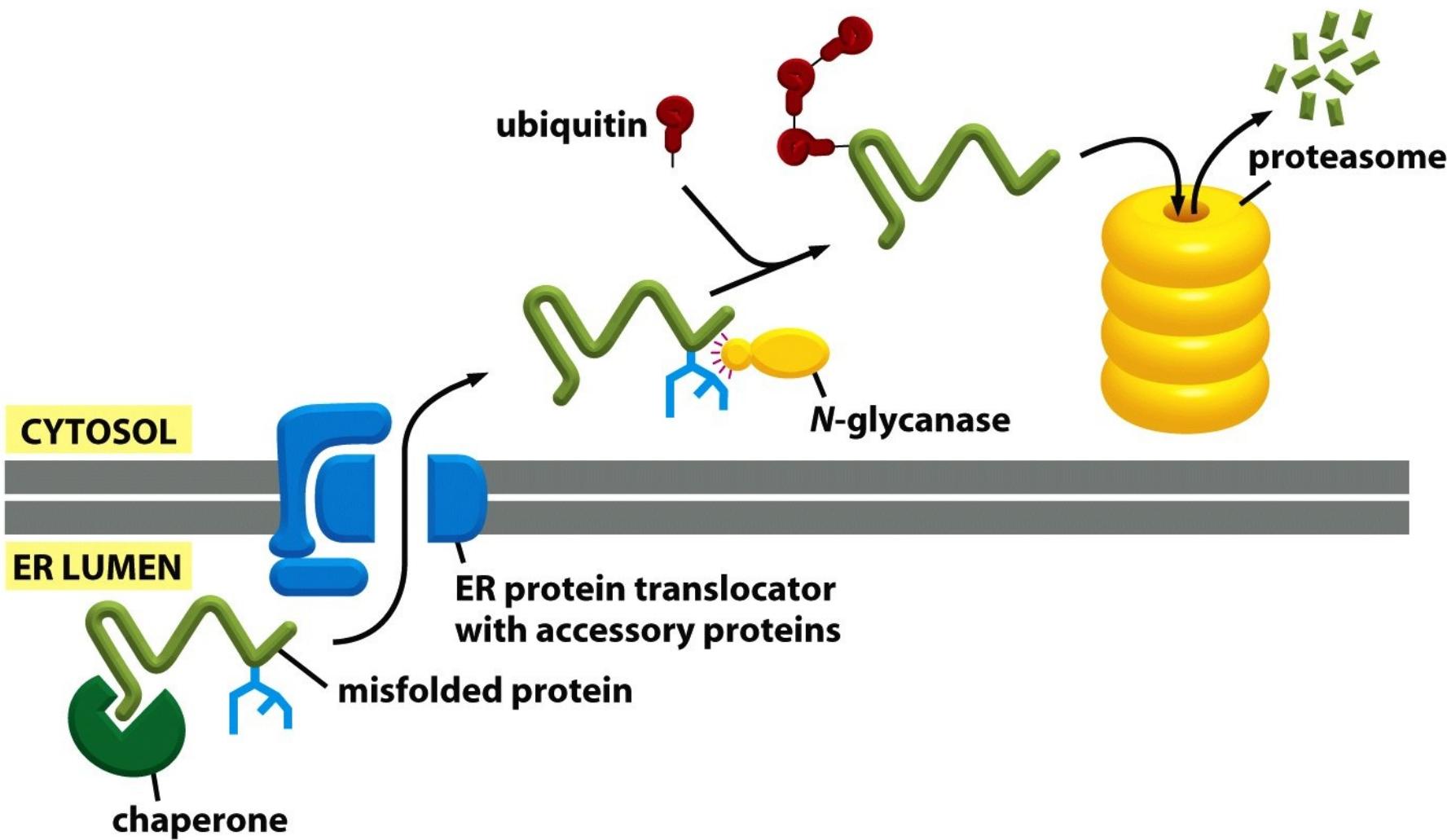
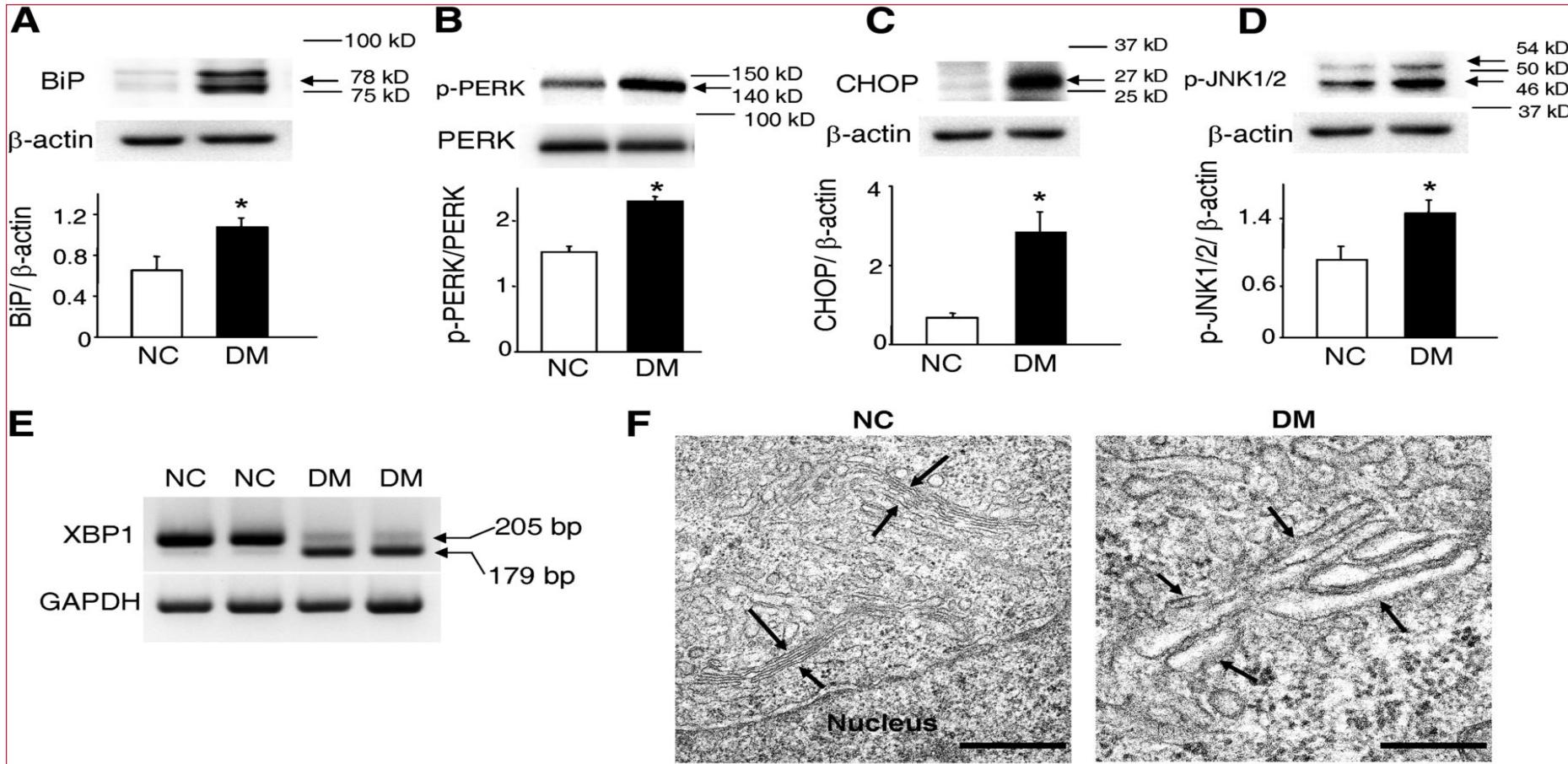
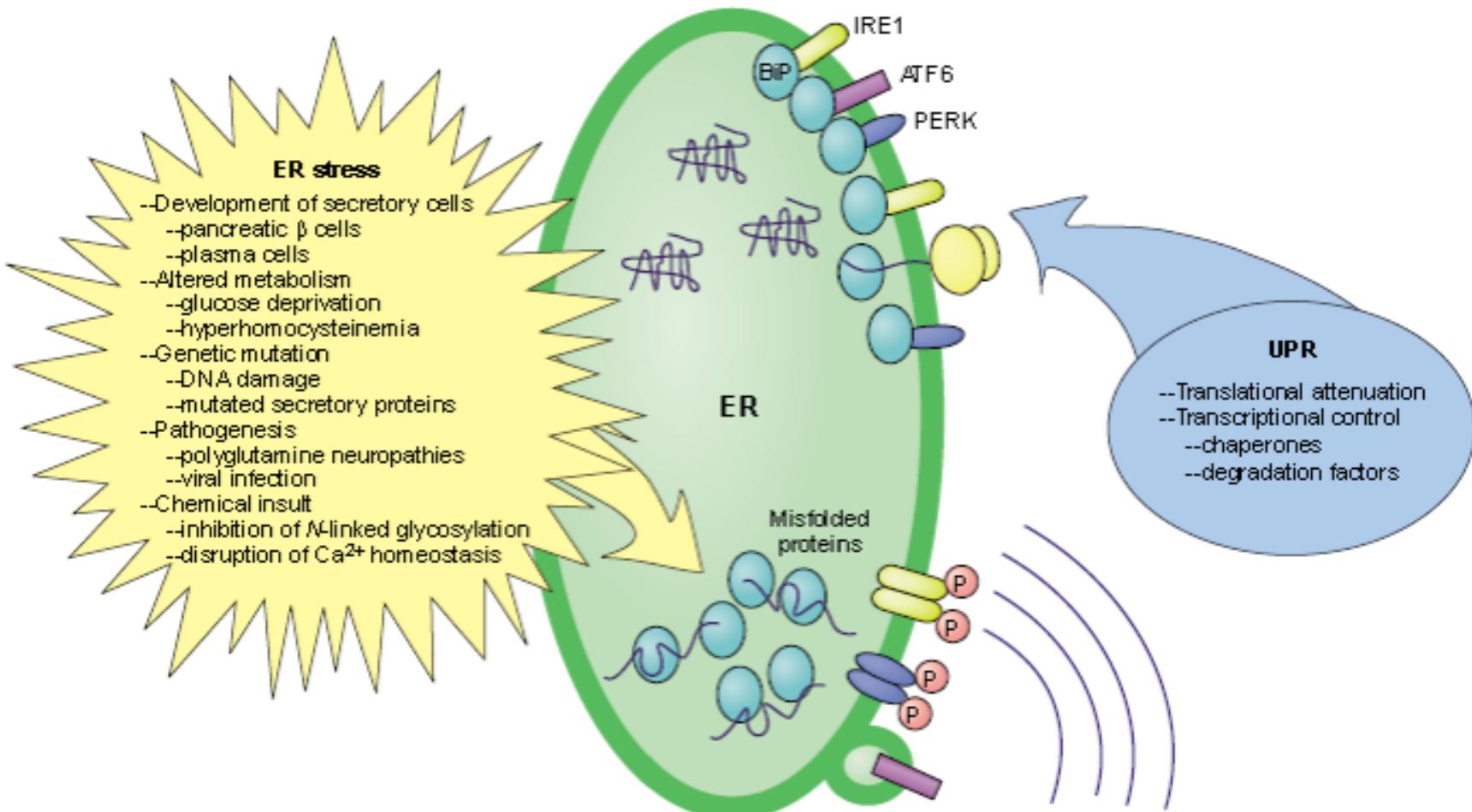


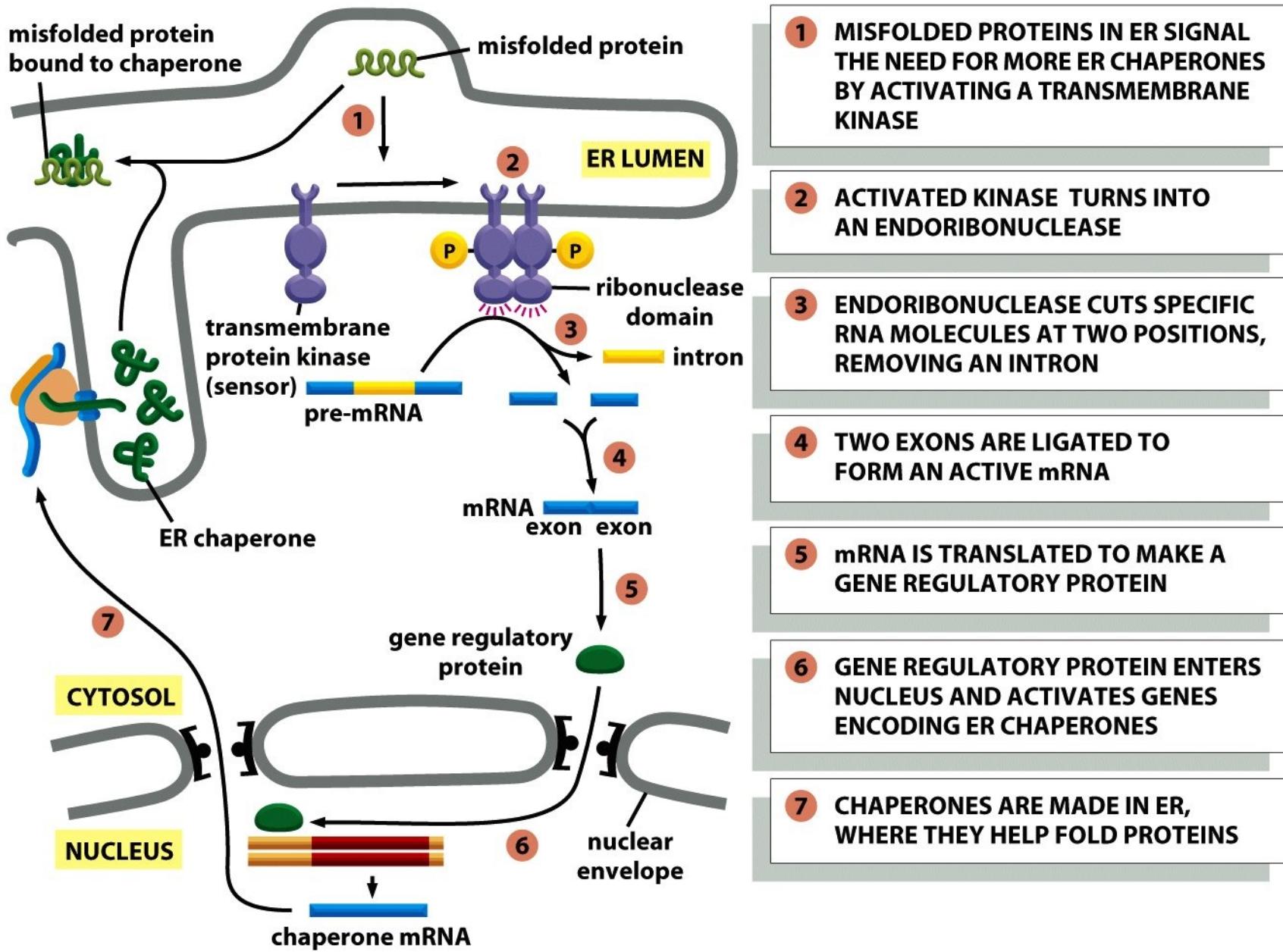
Figure 12-54 Molecular Biology of the Cell (© Garland Science 2008)



Endoplazmik Retikulum Stressi



TRENDS in Cell Biology



1 MISFOLDED PROTEINS IN ER SIGNAL THE NEED FOR MORE ER CHAPERONES BY ACTIVATING A TRANSMEMBRANE KINASE

2 ACTIVATED KINASE TURNS INTO AN ENDORIBONUCLEASE

3 ENDORIBONUCLEASE CUTS SPECIFIC RNA MOLECULES AT TWO POSITIONS, REMOVING AN INTRON

4 TWO EXONS ARE LIGATED TO FORM AN ACTIVE mRNA

5 mRNA IS TRANSLATED TO MAKE A GENE REGULATORY PROTEIN

6 GENE REGULATORY PROTEIN ENTERS NUCLEUS AND ACTIVATES GENES ENCODING ER CHAPERONES

7 CHAPERONES ARE MADE IN ER, WHERE THEY HELP FOLD PROTEINS

Figure 12-55b Molecular Biology of the Cell (© Garland Science 2008)

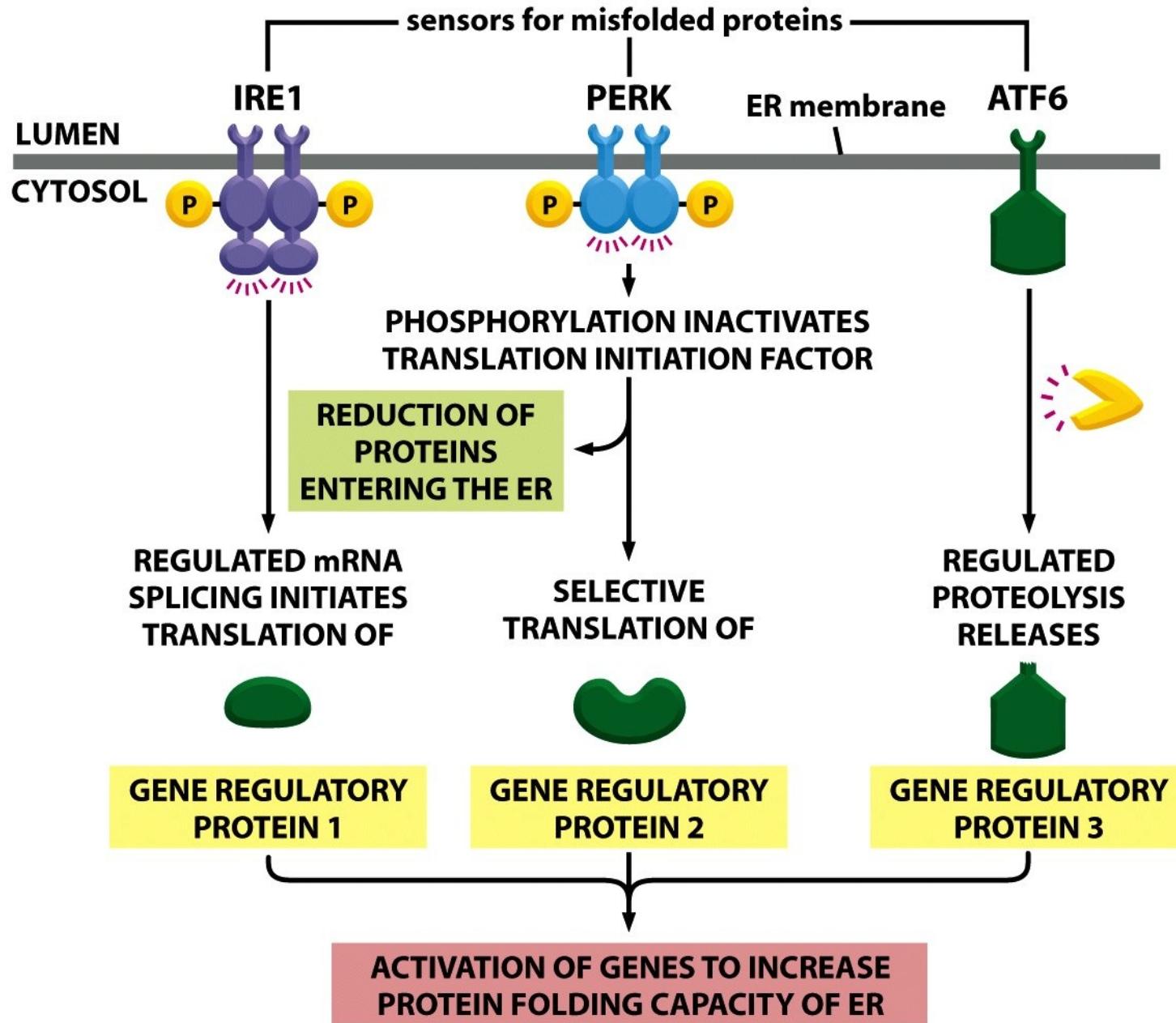
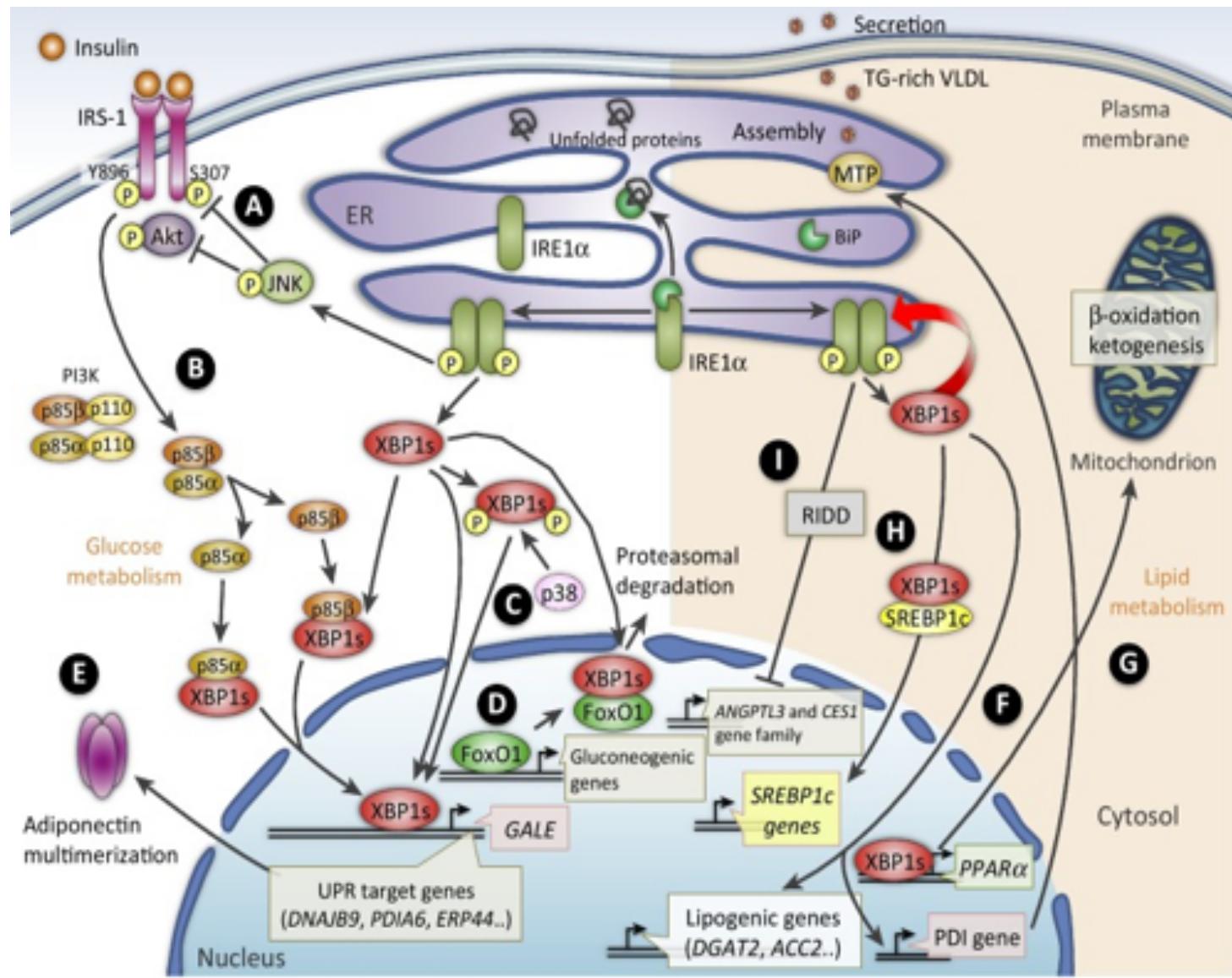


Figure 12-55a Molecular Biology of the Cell (© Garland Science 2008)



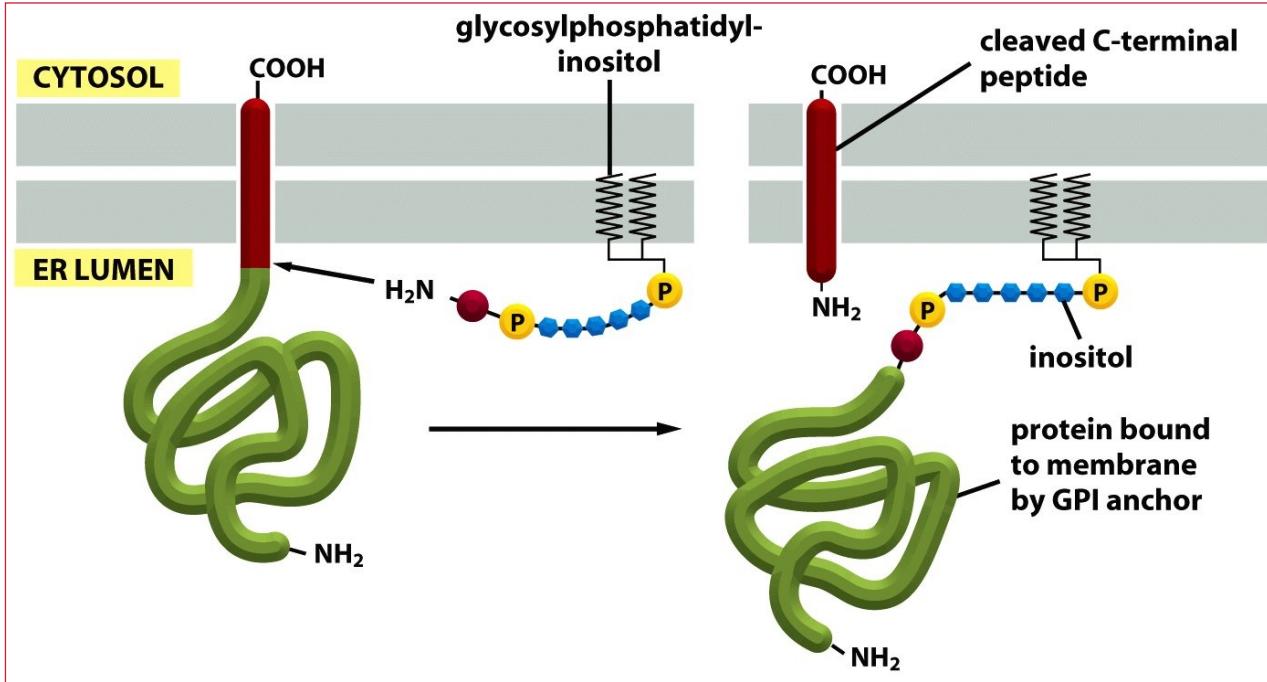
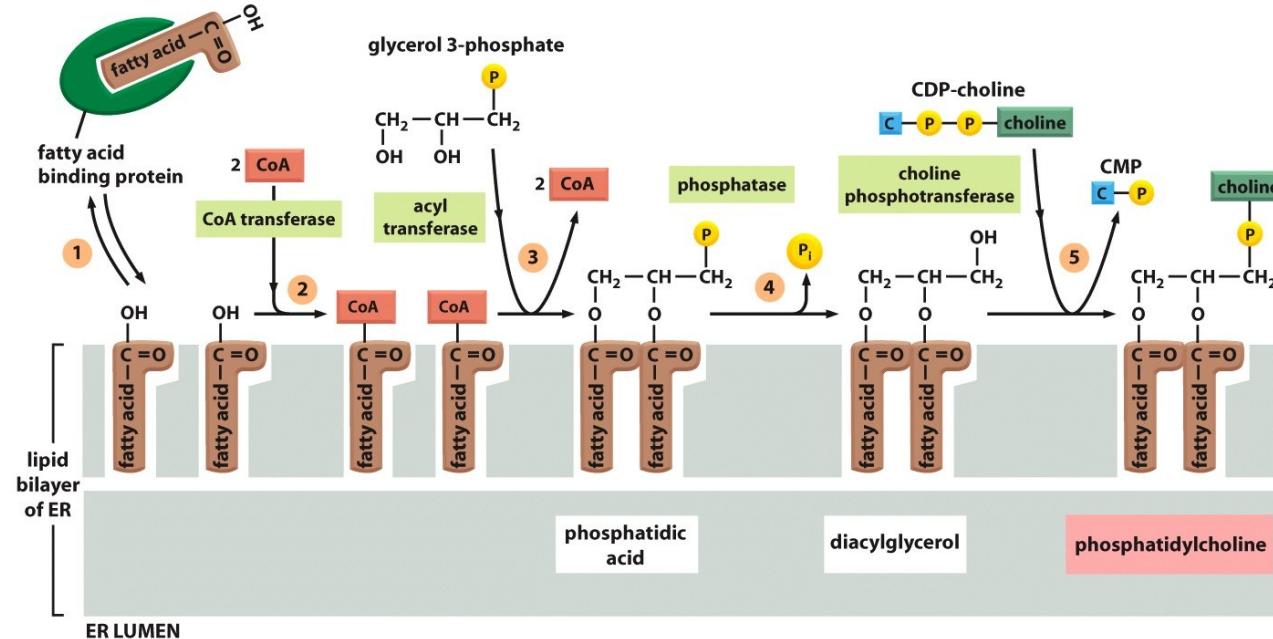


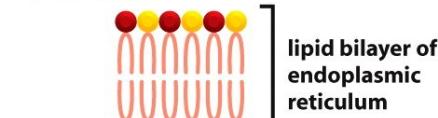
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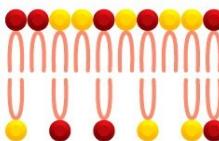
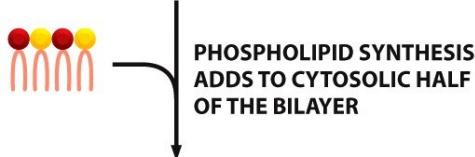
Lipid çift katmanının çoğu ER'da yapılır

(A) ER MEMBRANE

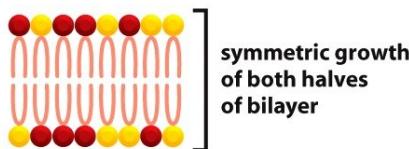
CYTOSOL



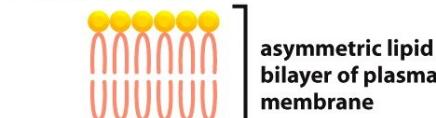
ER LUMEN



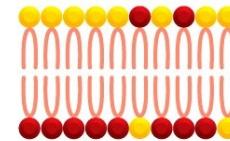
SCRAMBLASE CATALYZES
FLIPPING OF PHOSPHOLIPID
MOLECULES

**(B) PLASMA MEMBRANE**

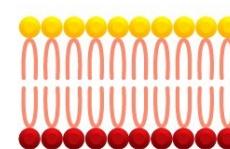
CELL EXTERIOR



CYTOSOL



FLIPPASE CATALYSES
FLIPPING OF SPECIFIC
PHOSPHOLIPIDS TO
CYTOPLASMIC MONOLAYER



OH

OH

CH

CH₂

CH

NH

CH

C = O

 $(\text{CH}_2)_{12}$ $(\text{CH}_2)_{16}$ CH₃CH₃**CERAMIDE**

Serin aminoasitinden sfingozin amino alkolüne
iki molekül yağ asiti eklenderek golgiye gönerilir.
sfingomiyelin oluşturmak için yeni membran
sentezinde kullanılır