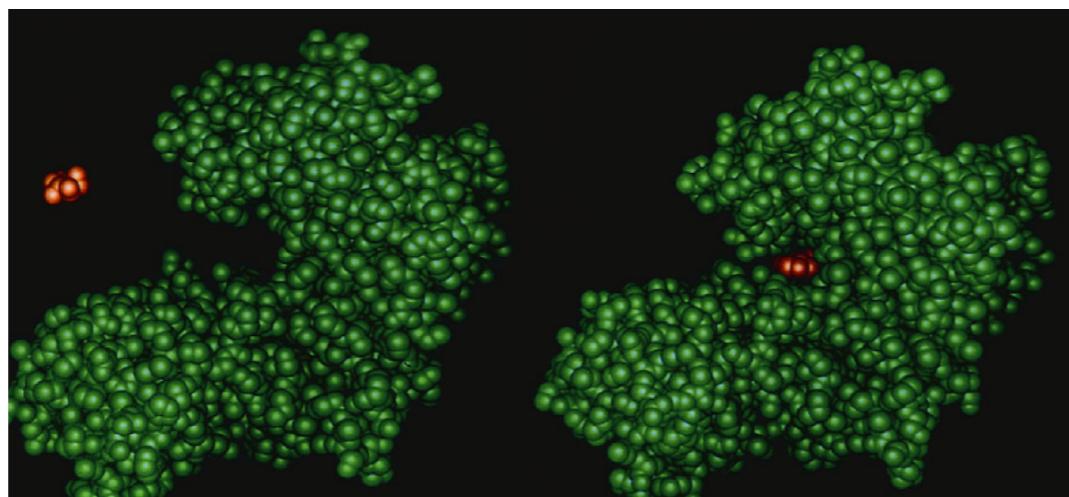


# Cell and Molecular Review

## Important molecules

Water  
&  
other  
inorganics

*Organics*  
Carbohydrates  
Lipids  
Amino Acids (proteins)  
Nucleotides (nucleic acids)



# Cell and Molecular Review

Water  
&  
other  
inorganics

## Important molecules

Organics

Carbohydrates

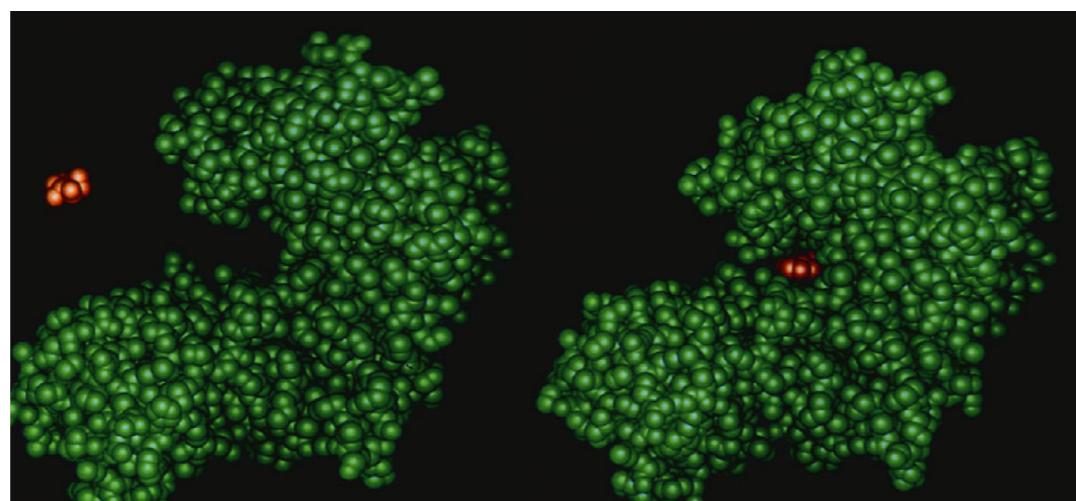
Lipids

Amino Acids (proteins)

Nucleotides (nucleic acids)

Triglycerides  
Phospholipids  
Cholesterol

membranes  
steroid hormones

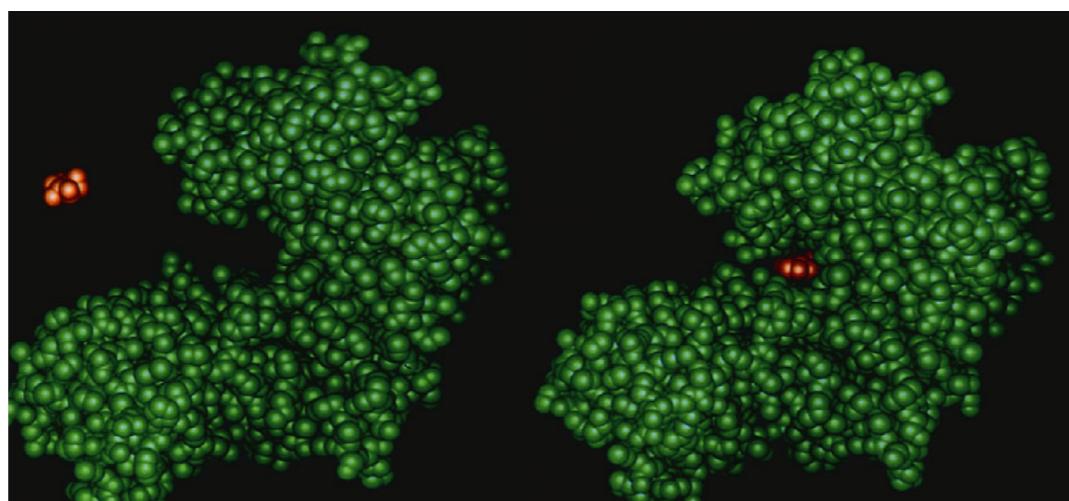


# Cell and Molecular Review

## Important molecules

Water  
&  
other  
inorganics

*Organics*  
Carbohydrates  
Lipids  
Amino Acids (proteins)  
Nucleotides (nucleic acids)

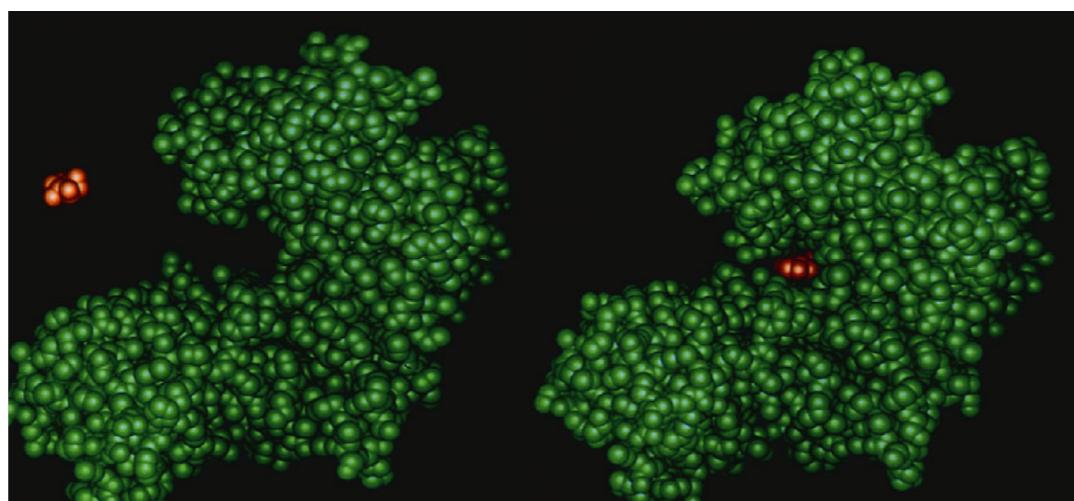


# Cell and Molecular Review

## Important molecules

Water  
&  
other  
inorganics

*Organics*  
Carbohydrates  
Lipids  
Amino Acids (proteins)  
Nucleotides (nucleic acids)



sugar, phosphate and a base

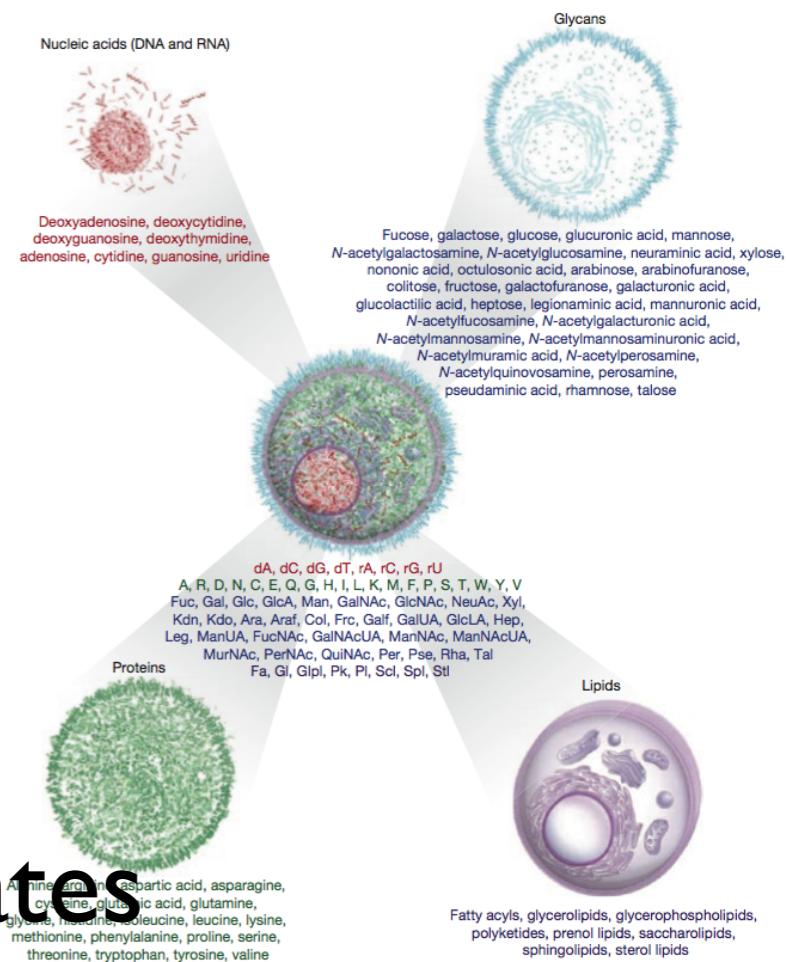
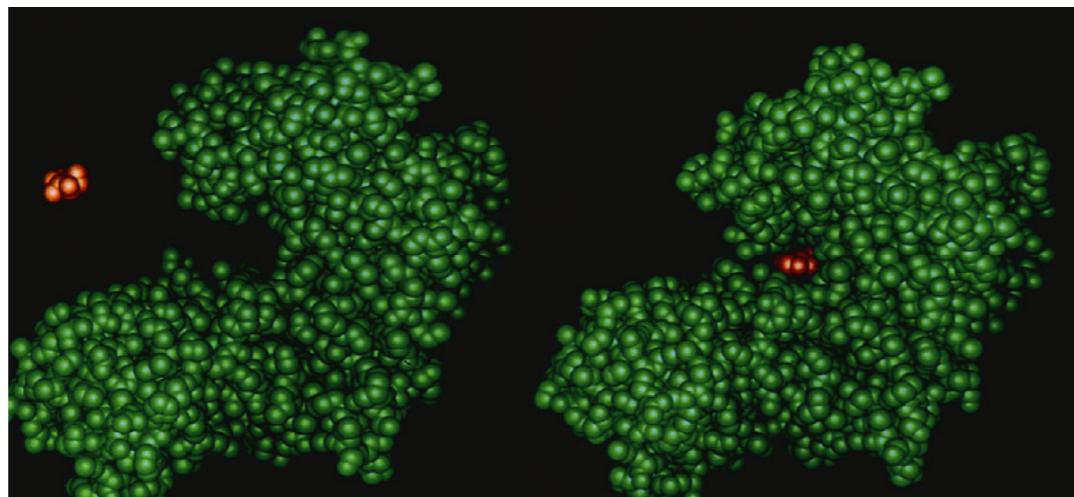
# Cell and Molecular Review

Water  
&  
other  
inorganics

A unified vision of the building blocks of life

Jamey D. Marth

*Organics*  
*Carbohydrates*  
*Lipids*  
*Amino Acids (proteins)*  
*Nucleotides (nucleic acids)*



# Cell and Molecular Review

*Organics*

Carbohydrates

Lipids

Amino Acids (proteins)

Nucleotides (nucleic acids)

*Homeostasis*

*important*

# Cell Structure

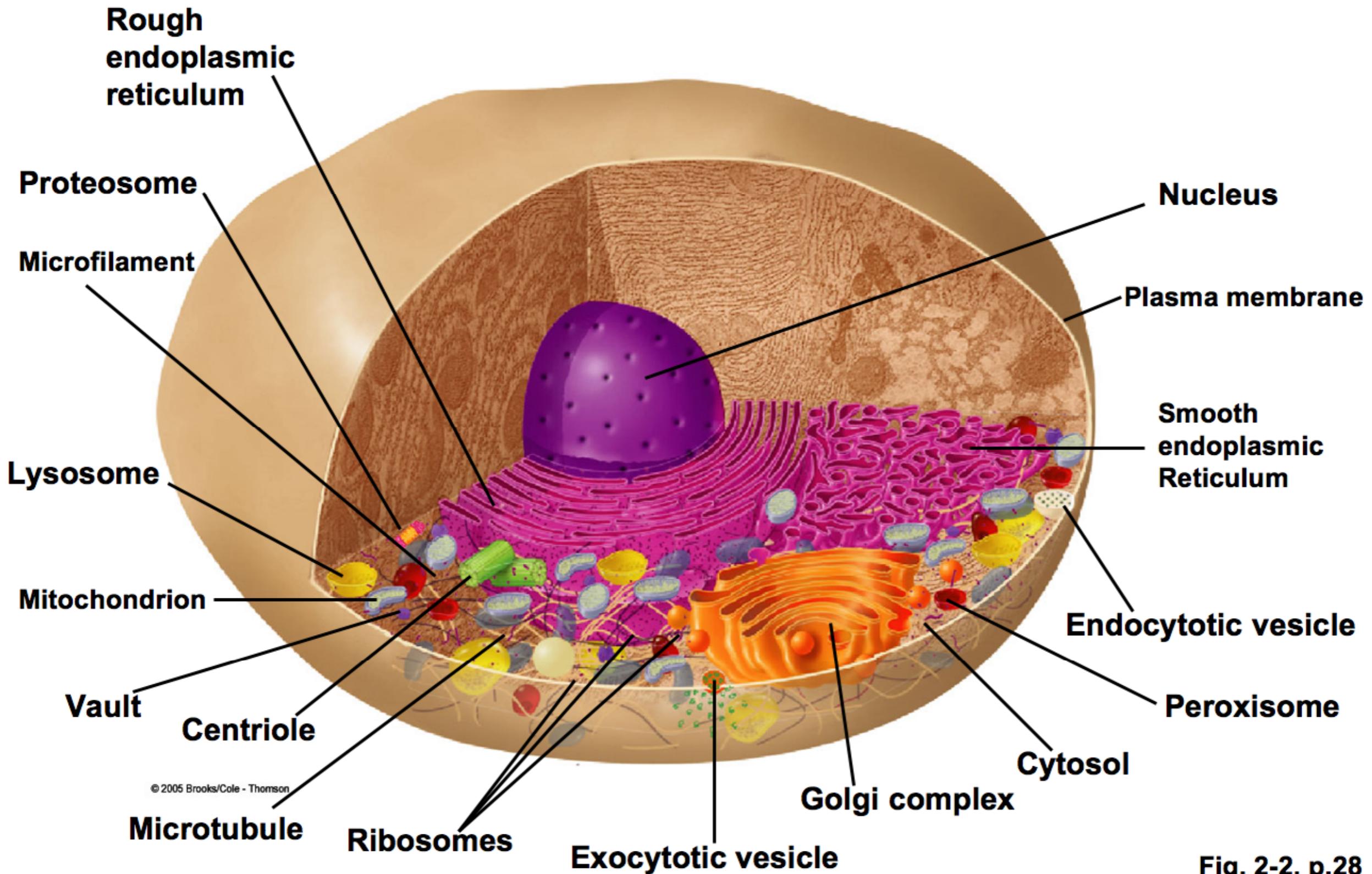
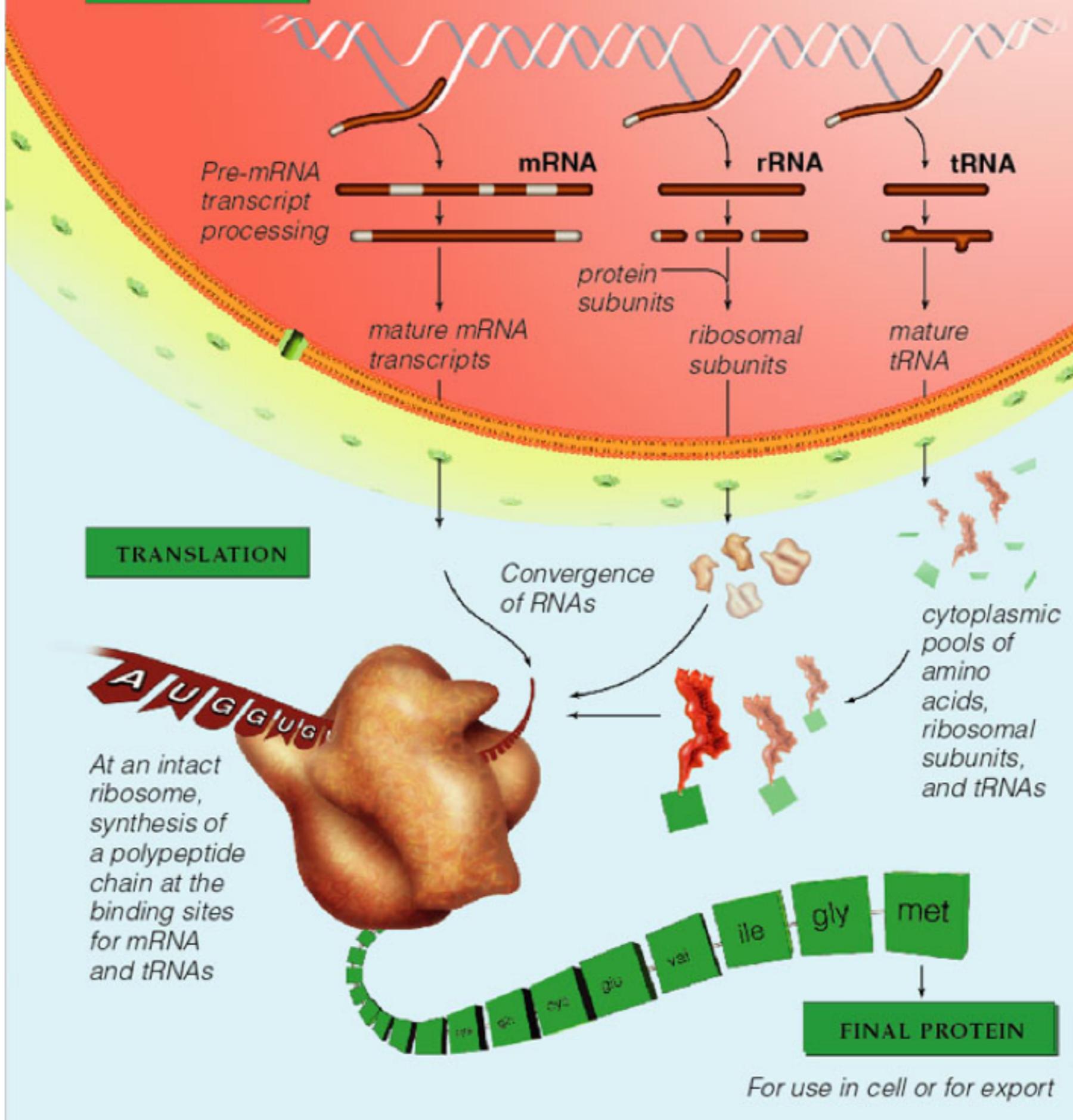


Fig. 2-2, p.28

**TRANSCRIPTION**

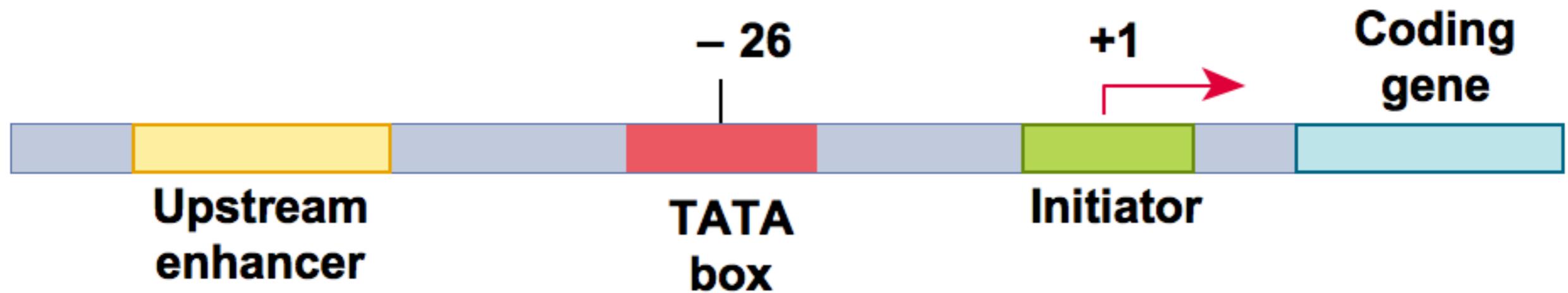
Assembly of RNA on unwound gene regions of DNA molecule



<https://www.youtube.com/watch?v=bk7PW1FKMTI>

video

# Upstream region



# Transcription

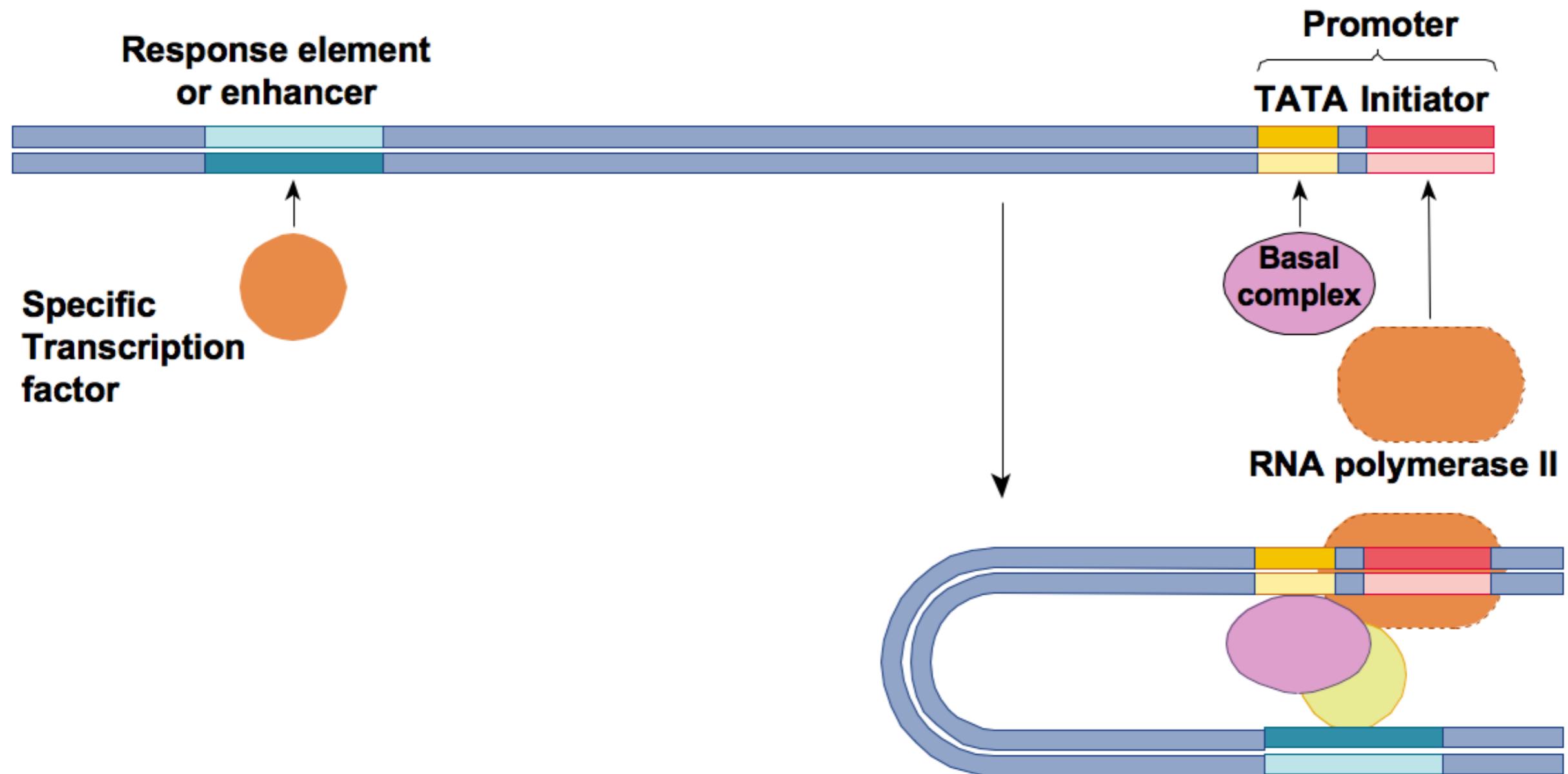


Fig. 2-4b, p.30



# Methodologies

# Cell Structure

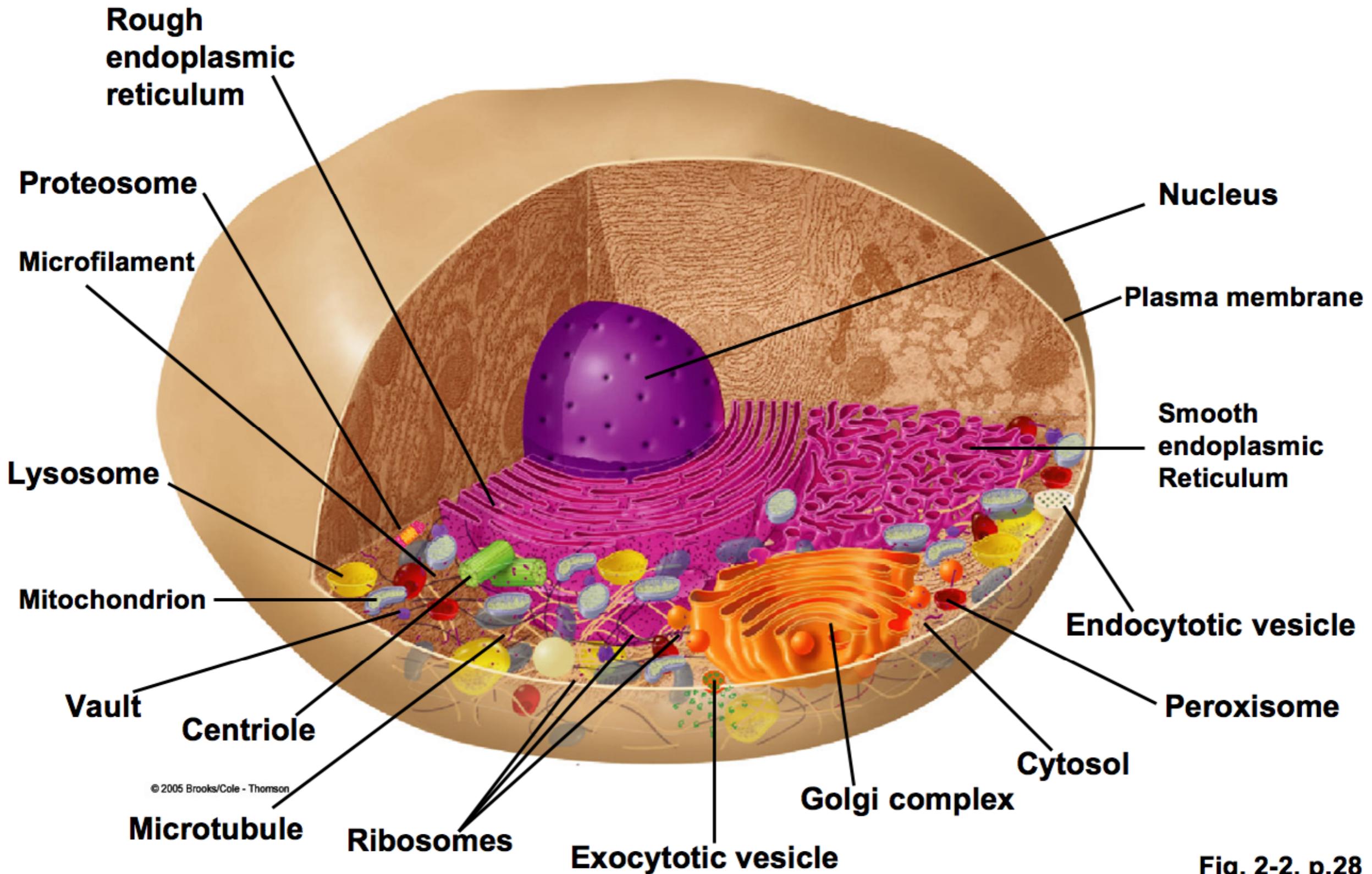
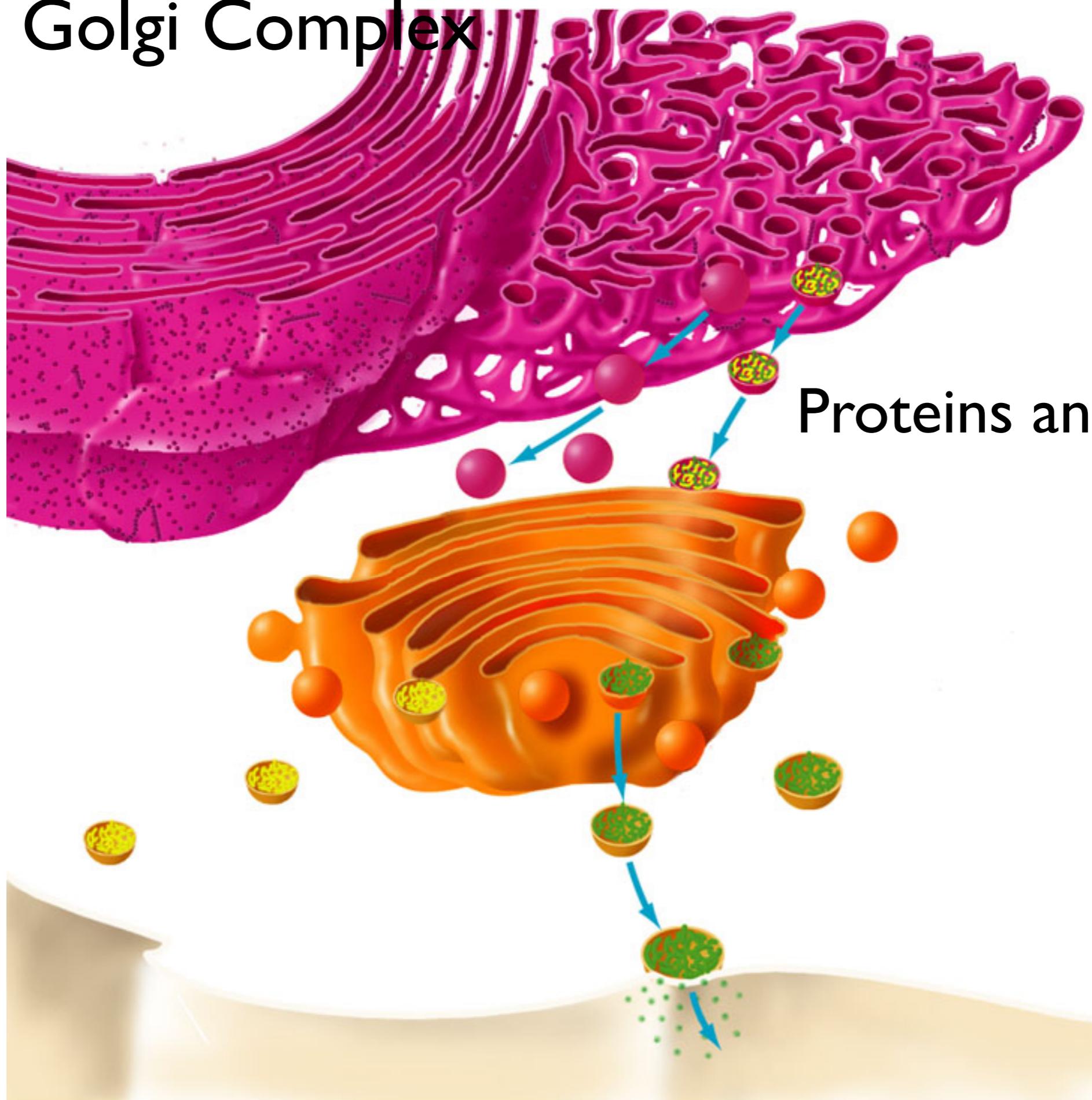
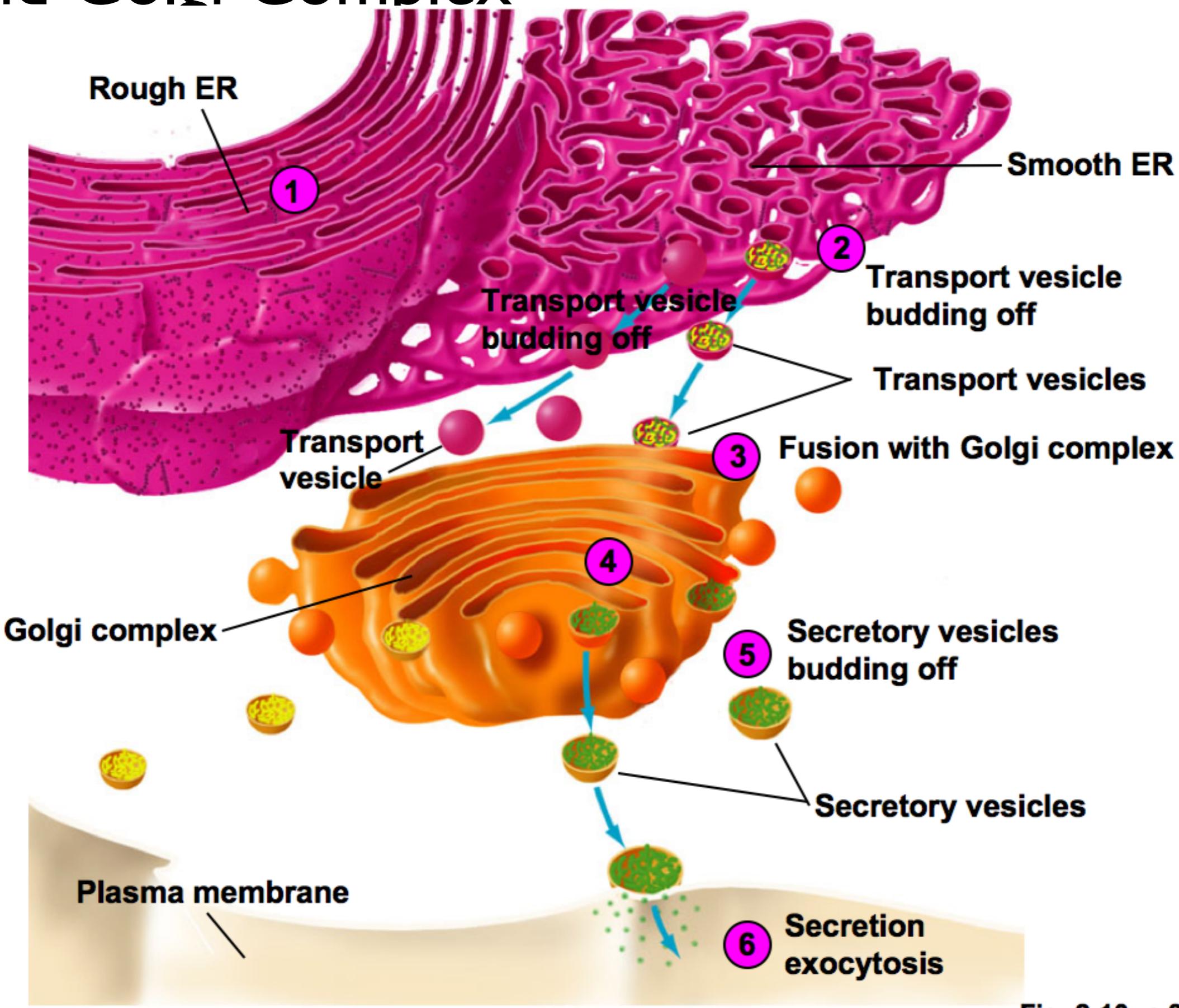


Fig. 2-2, p.28

# ER and Golgi Complex



# ER and Golgi Complex



# Cell Structure

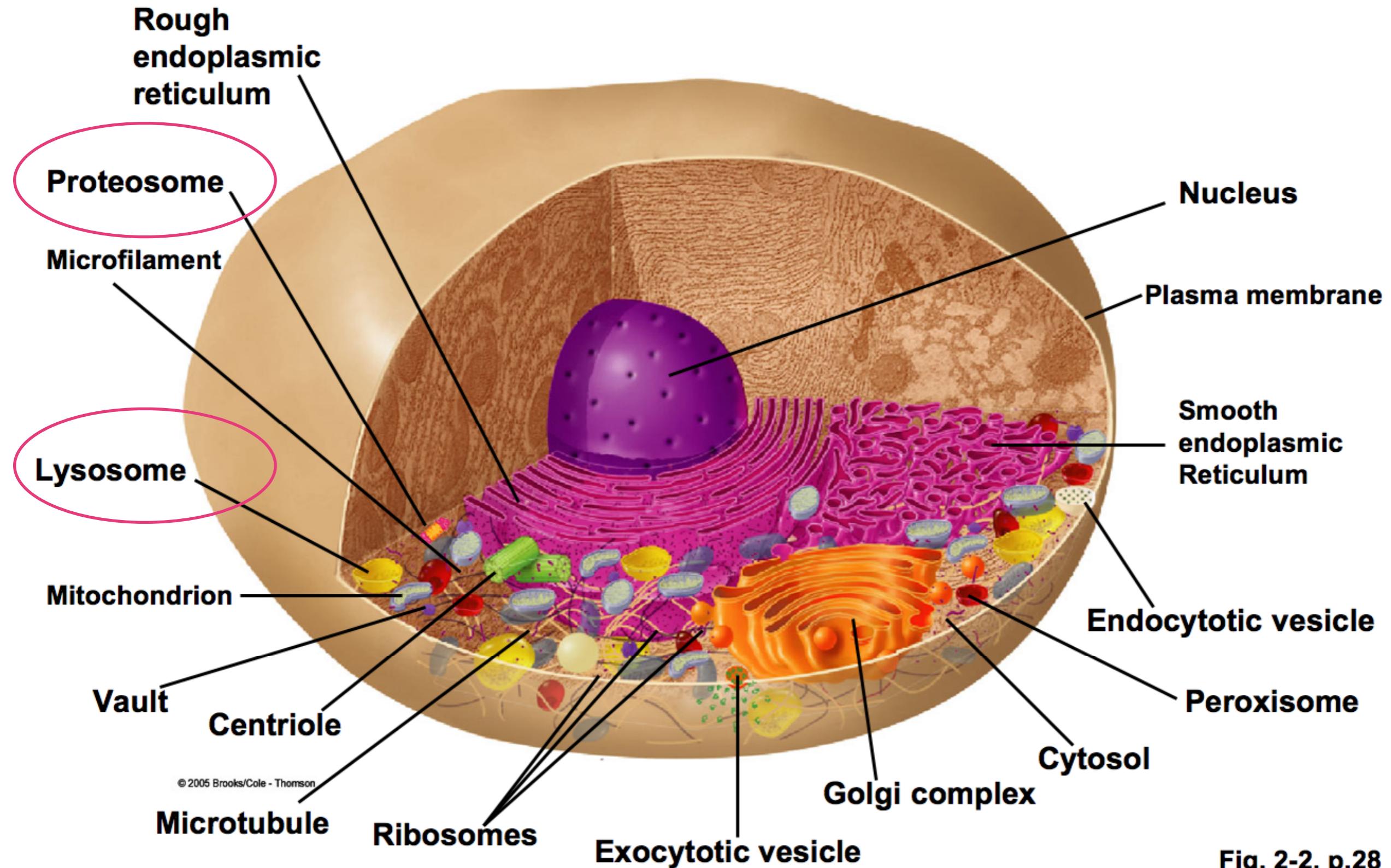
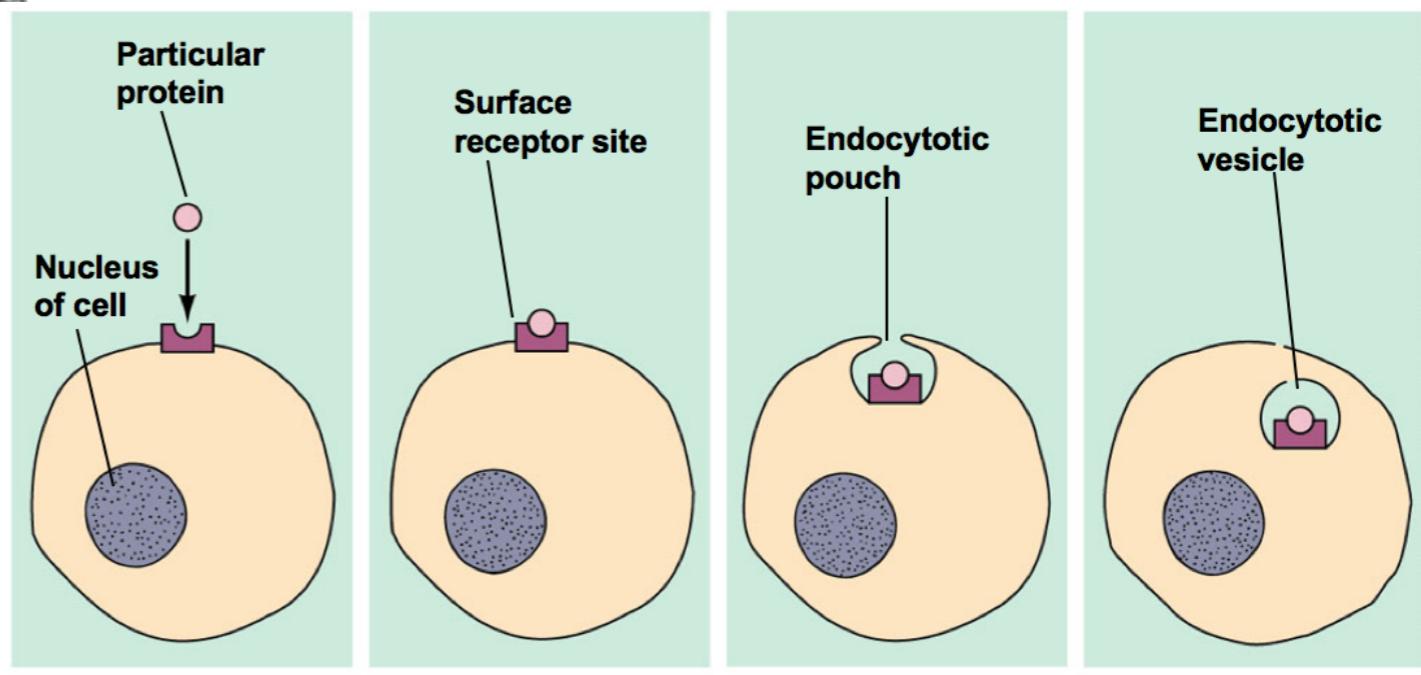
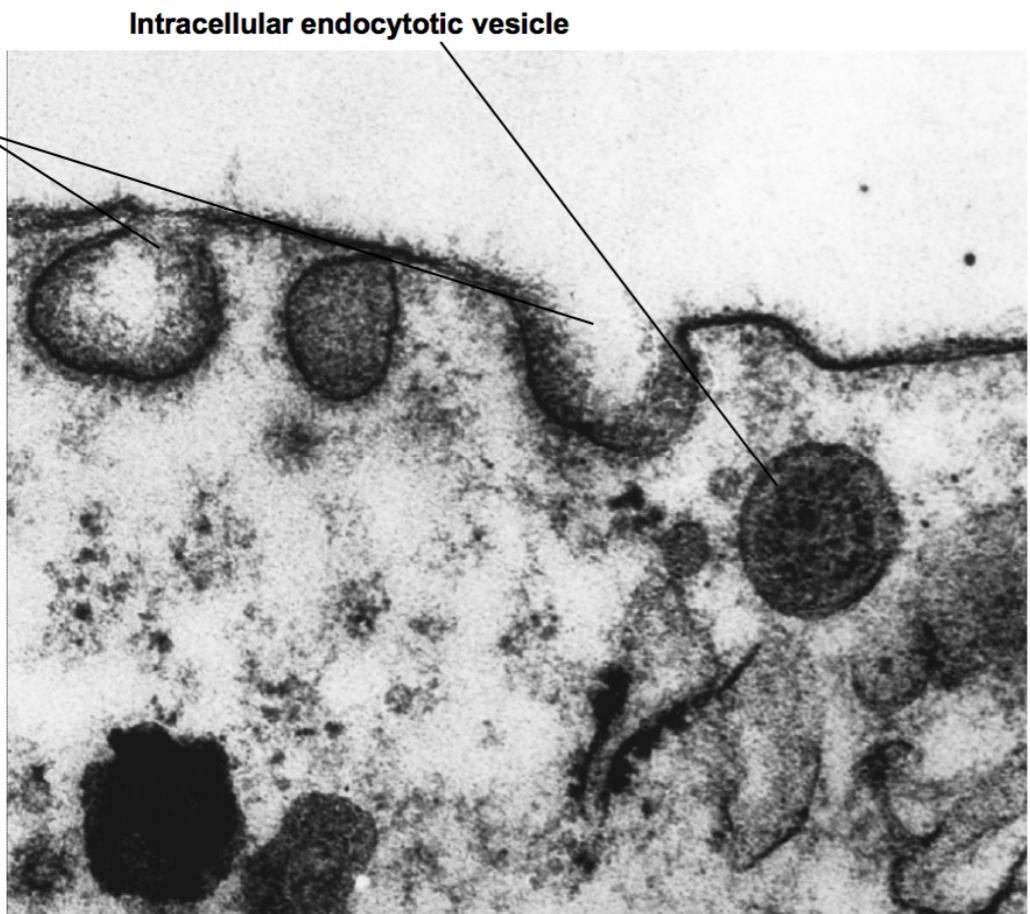
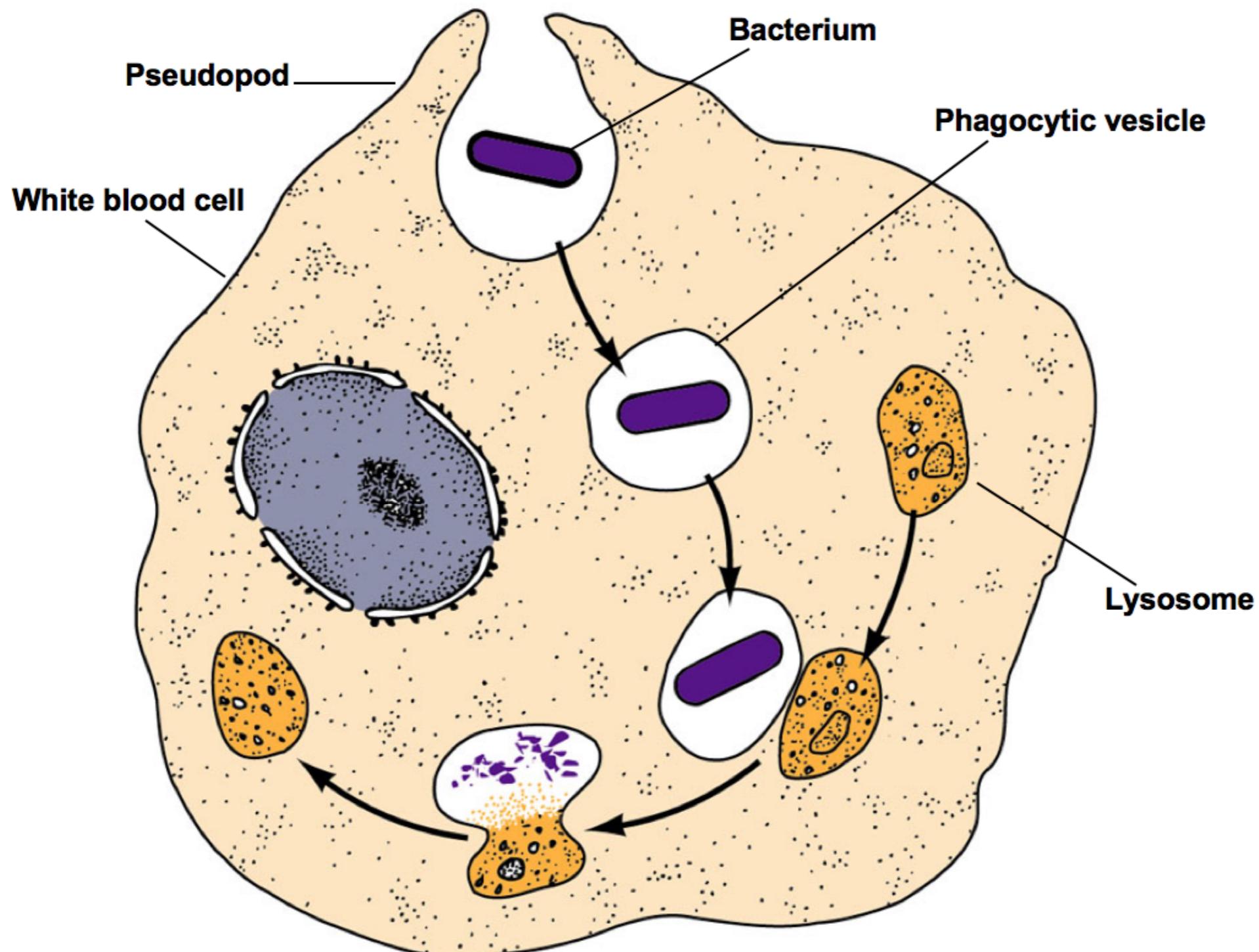


Fig. 2-2, p.28

# Lysosomes and Proteosomes



# Lysosomes and Proteosomes



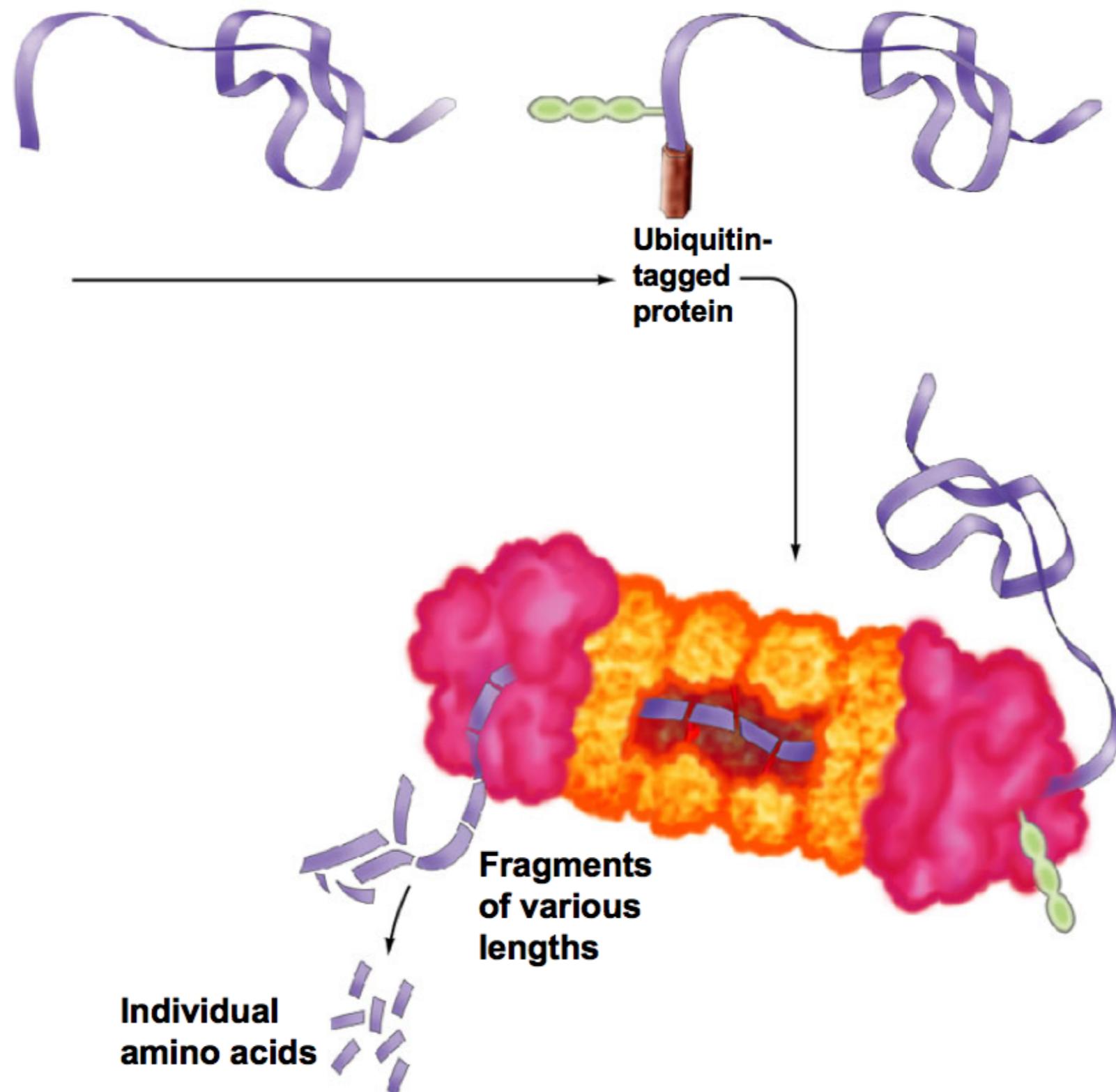
© 2005 Brooks/Cole - Thomson

Fig. 2-14c, p.42

# Lysosomes and Proteosomes



# Lysosomes and Proteosomes



© 2005 Brooks/Cole - Thomson

Fig. 2-15, p.43

# Lysosomes and Proteosomes

VIDEO

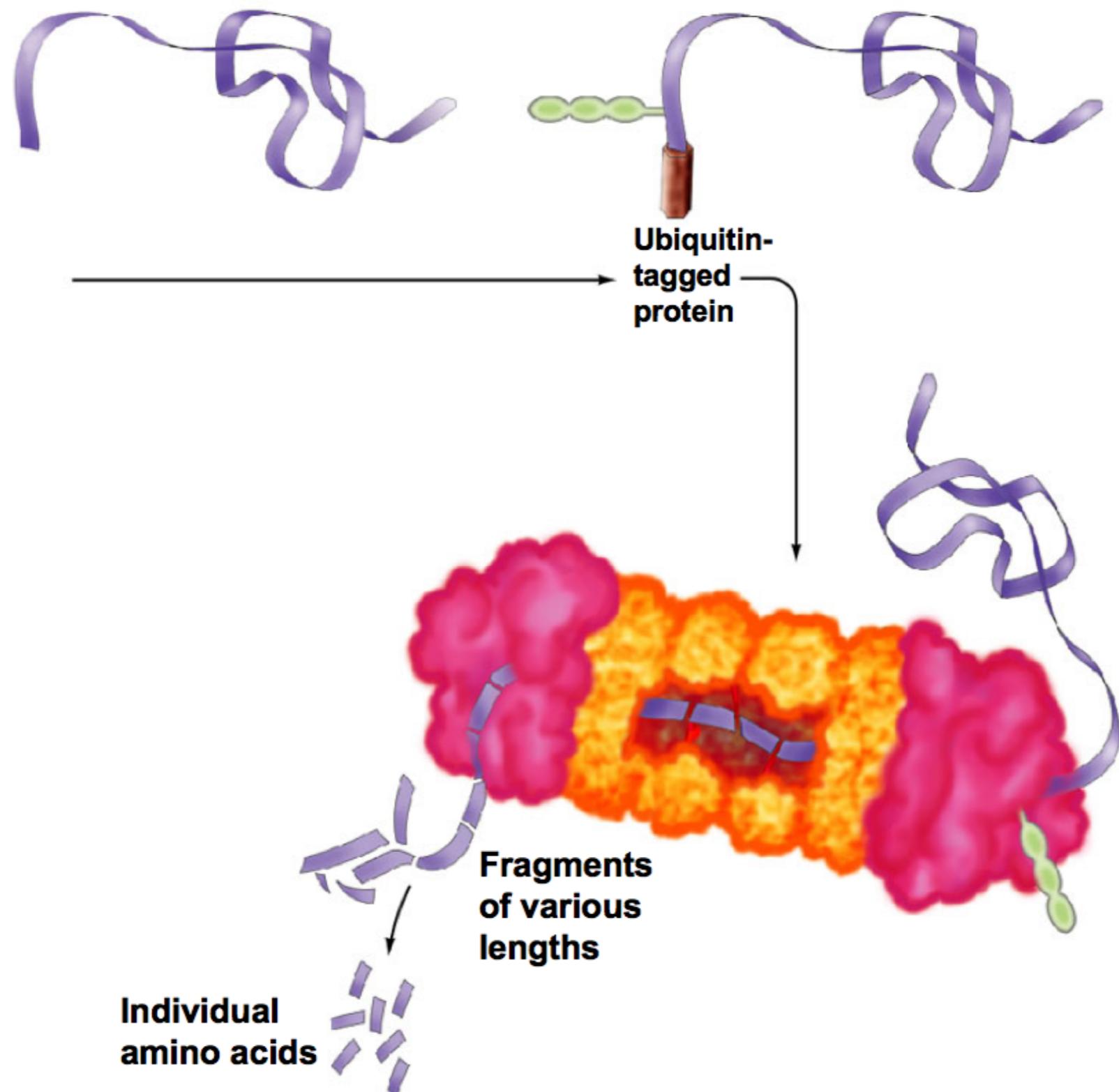


Fig. 2-15, p.43

# Cell Structure

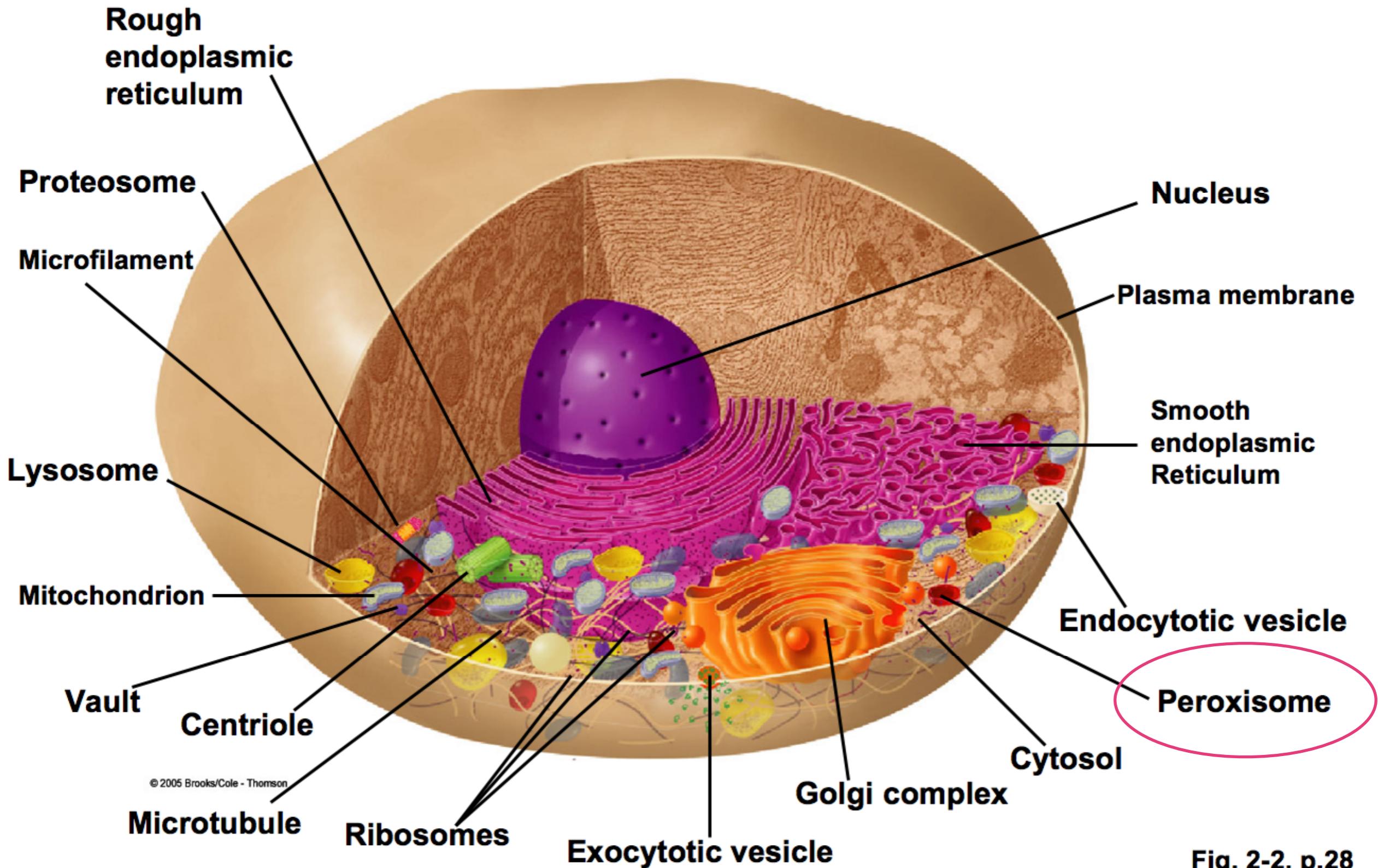
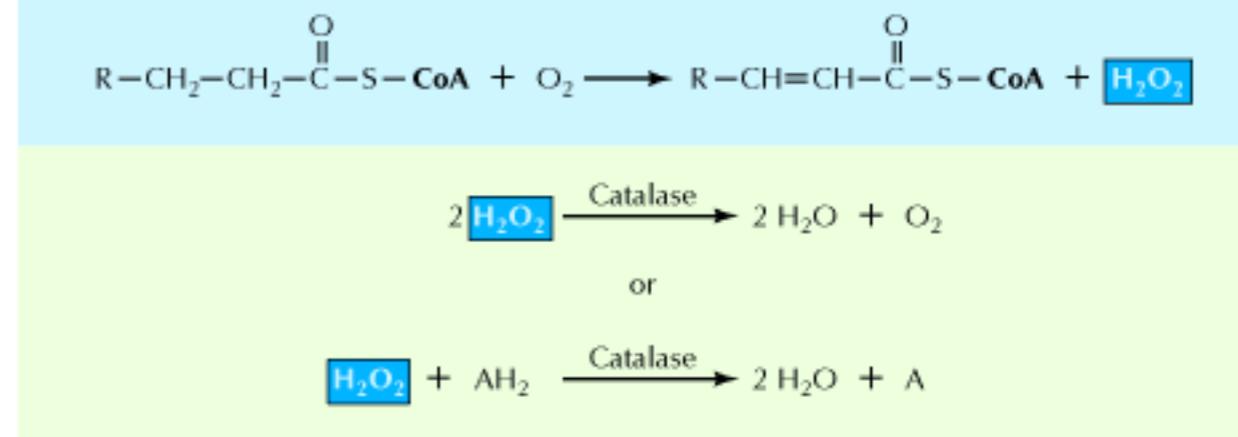


Fig. 2-2, p.28

# Peroxisomes

- Peroxisomes, small membrane-enclosed sacs containing powerful oxidative enzymes, are specialized for carrying out particular oxidative reactions, including certain detoxification activities.



# Cell Structure

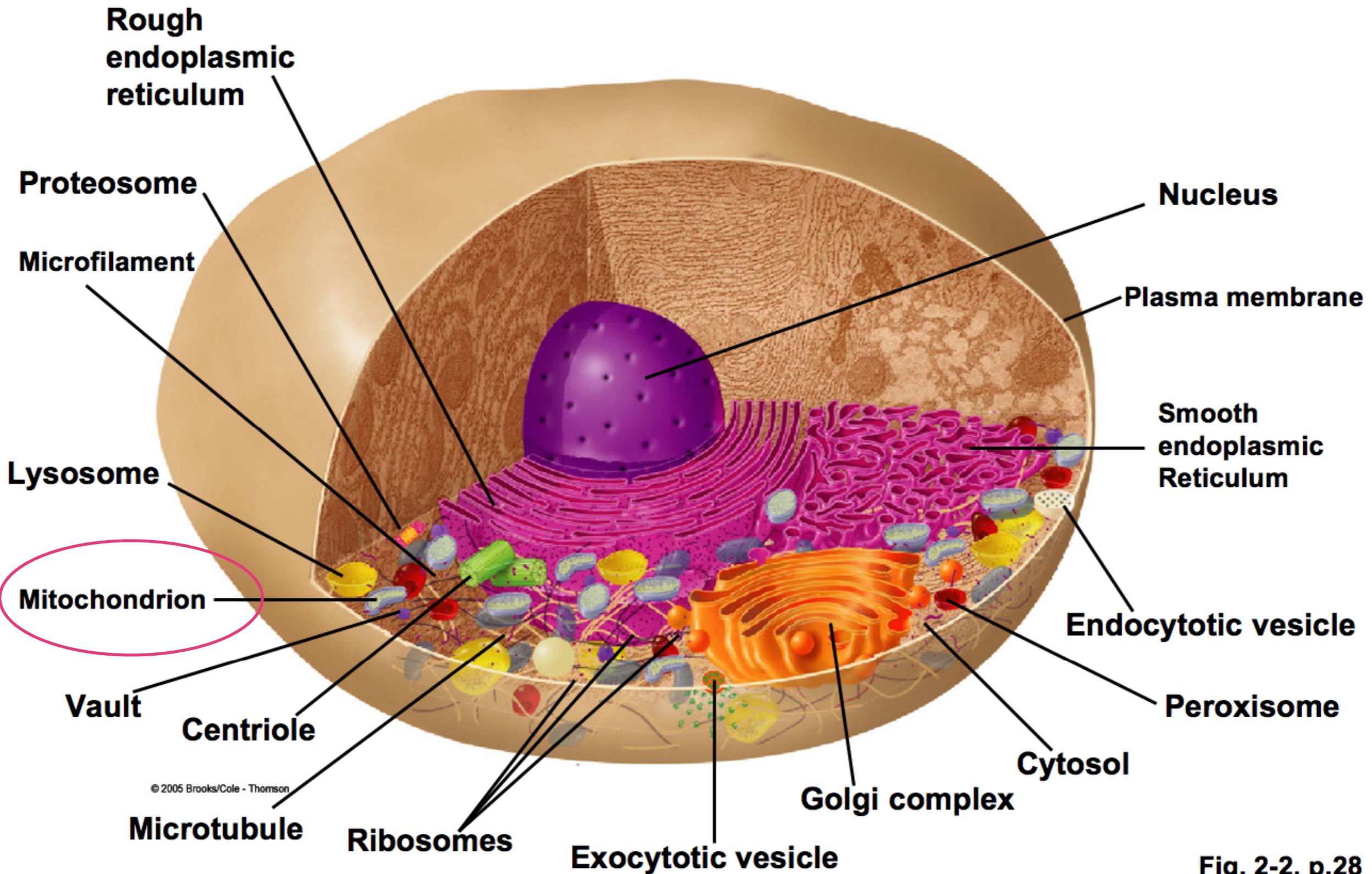


Fig. 2-2, p.28

# Mitochondria

