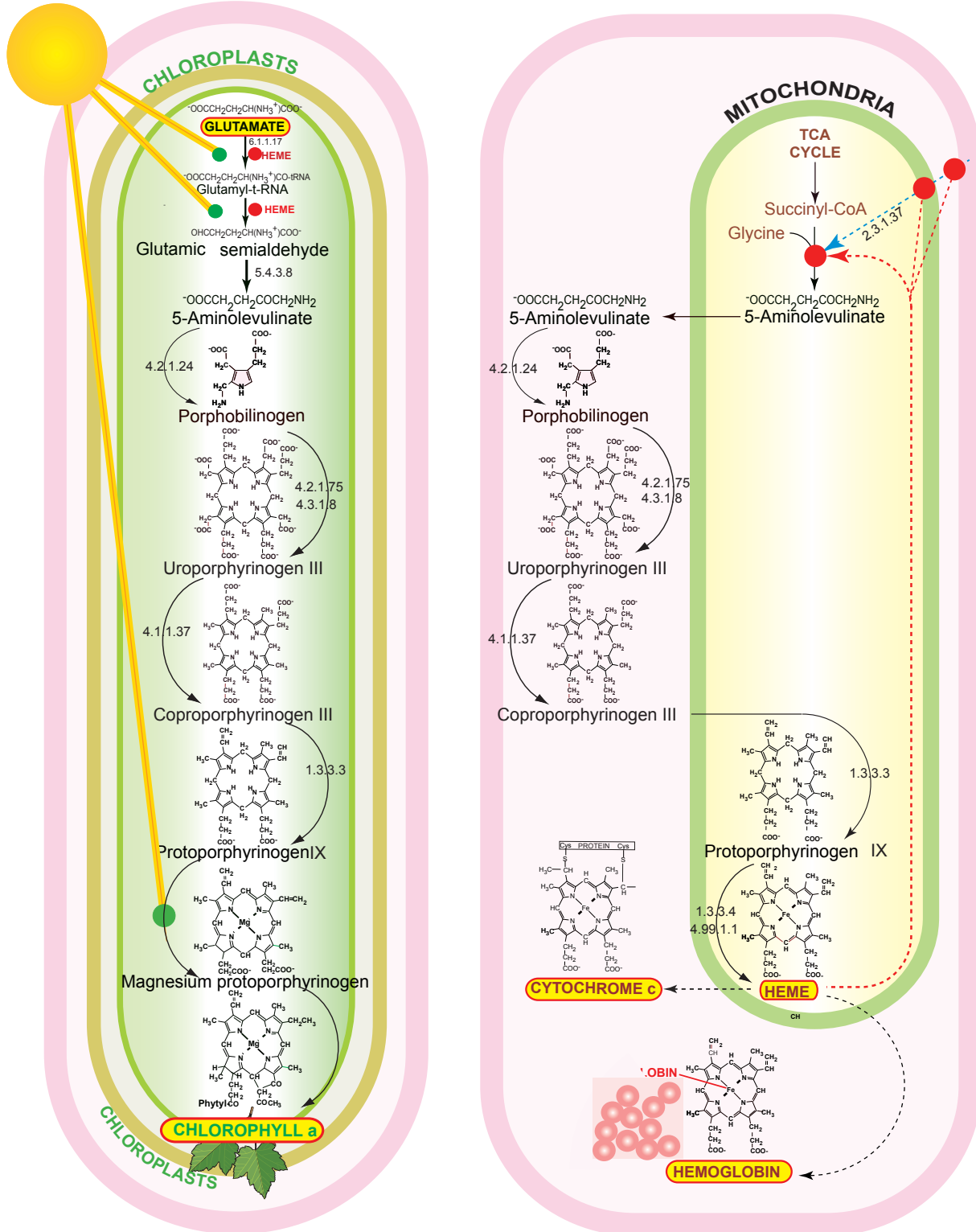


# HEME METABOLISM

## CHLOROPHYLL & HEMOGLOBIN

PLANTS, ALGAE, BACTERIA

MAMMALS, BIRDS, BACTERIA



### ENZYMES

1.3.3.3 Coproporphyrinogen oxidase  
1.3.3.4 Protoporphyrinogen oxidase  
2.1.1.11 Magnesium-protoporphyrin  
O-methyltransferase  
2.3.1.37 5-Aminolevulinate synthase  
4.1.1.37 Uroporphyrinogen decarboxylase

4.2.1.24 Porphobilinogen synthase  
4.2.1.75 Uroporphyrinogen-III synthase  
4.3.1.8 Hydroxymethylbilane synthase  
4.99.1.1 Ferrochelatase  
5.4.3.8 Glutamatesemialdehyde  
2,1-aminomutase  
6.1.1.17 Glutamate-t-RNA ligase