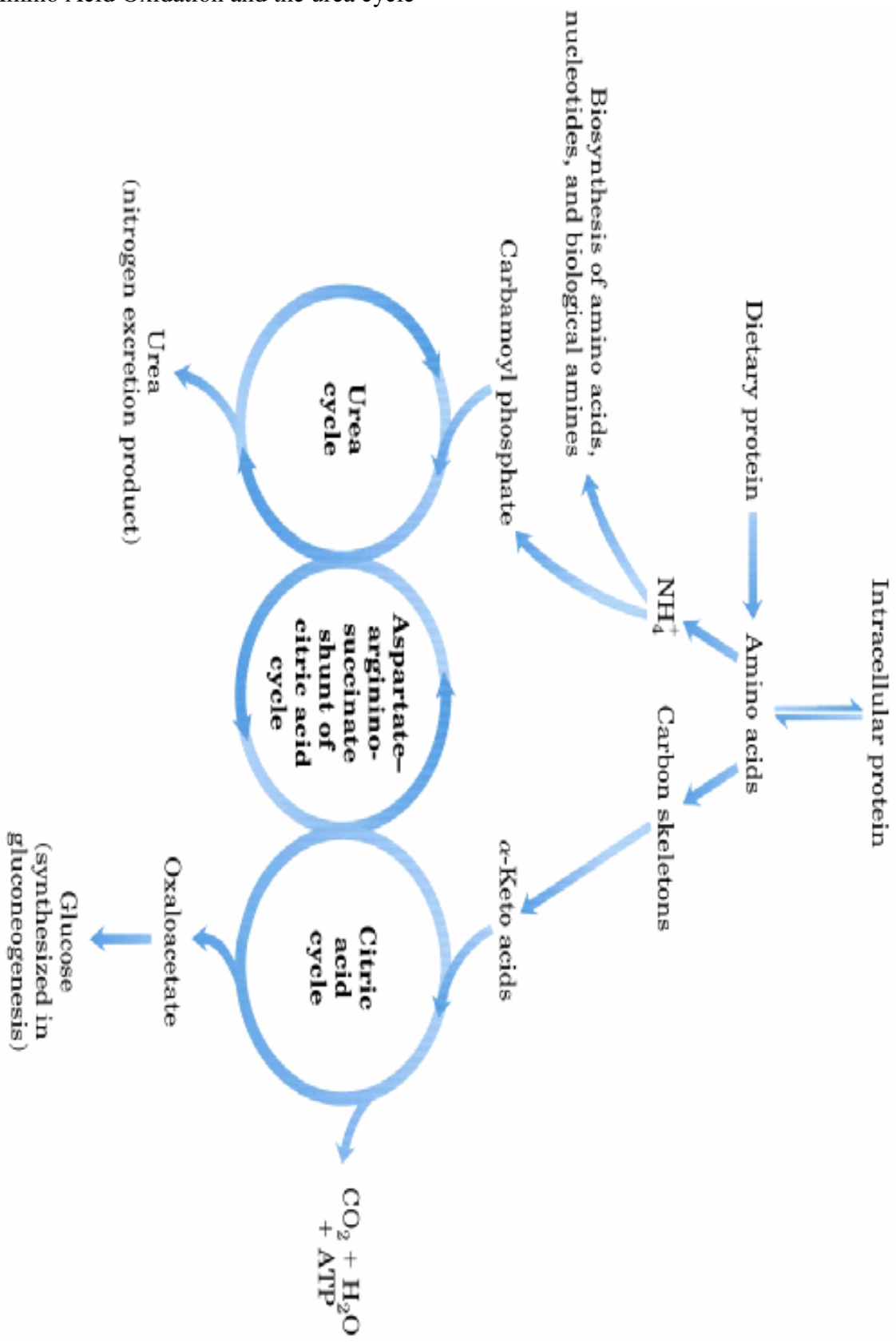
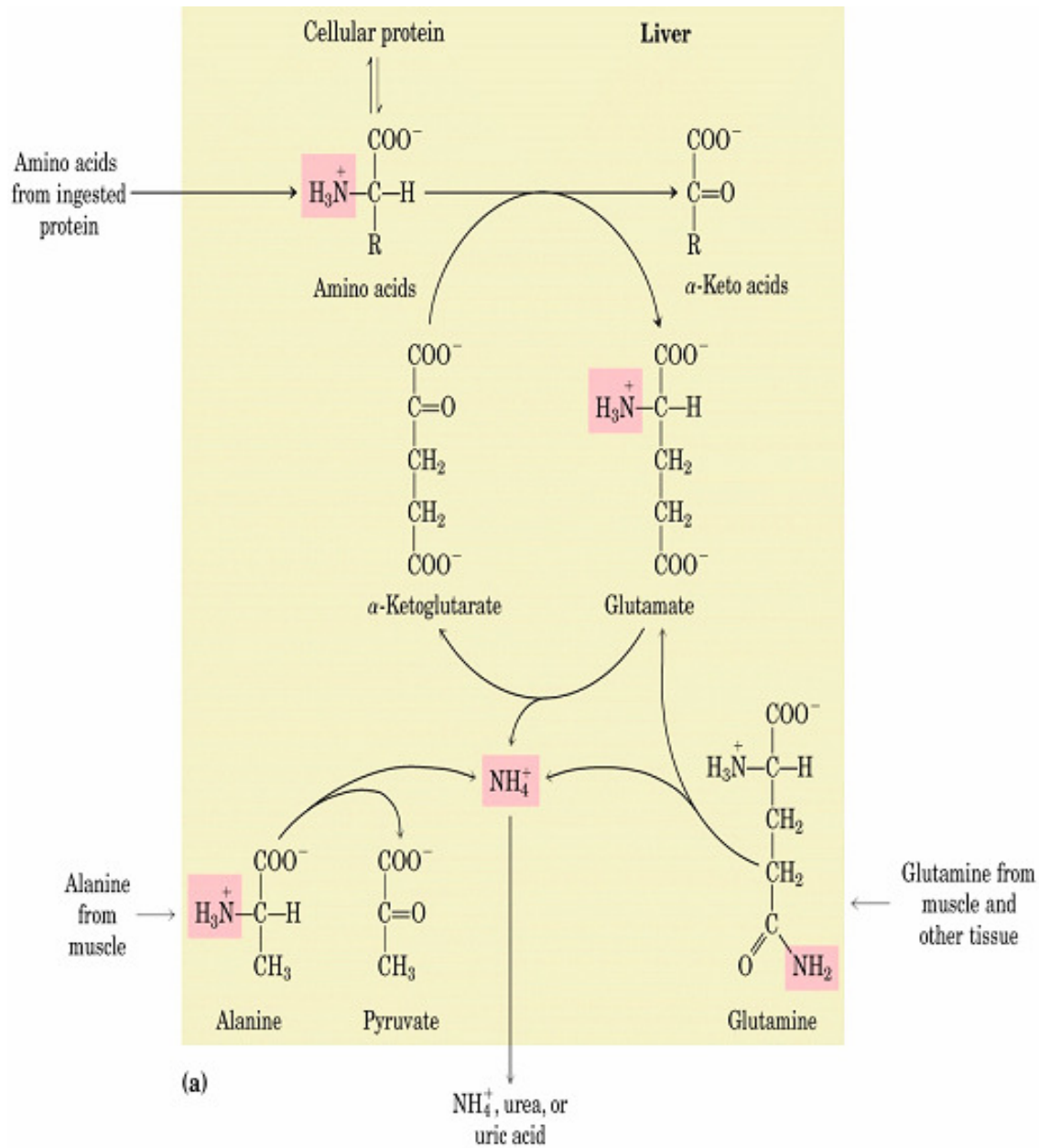


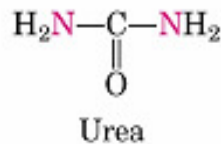
Amino Acid Oxidation and the urea cycle



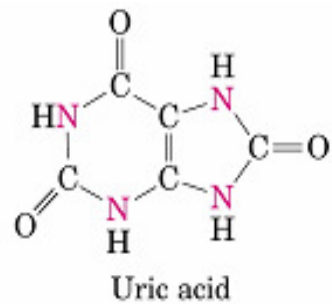


NH_4^+
Ammonia (as ammonium ion)

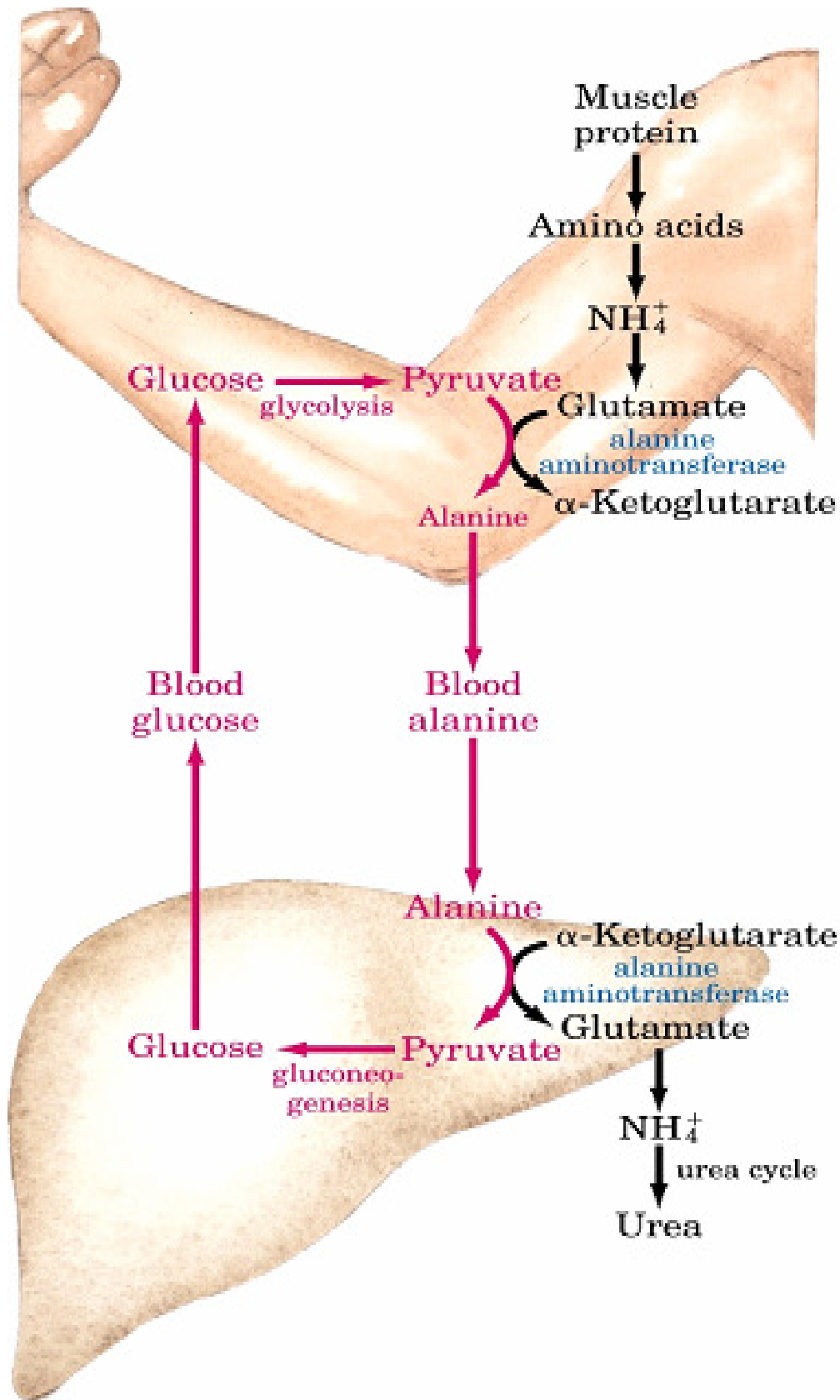
Ammonotelic animals: most aquatic vertebrates, such as bony fishes and the larvae of amphibia



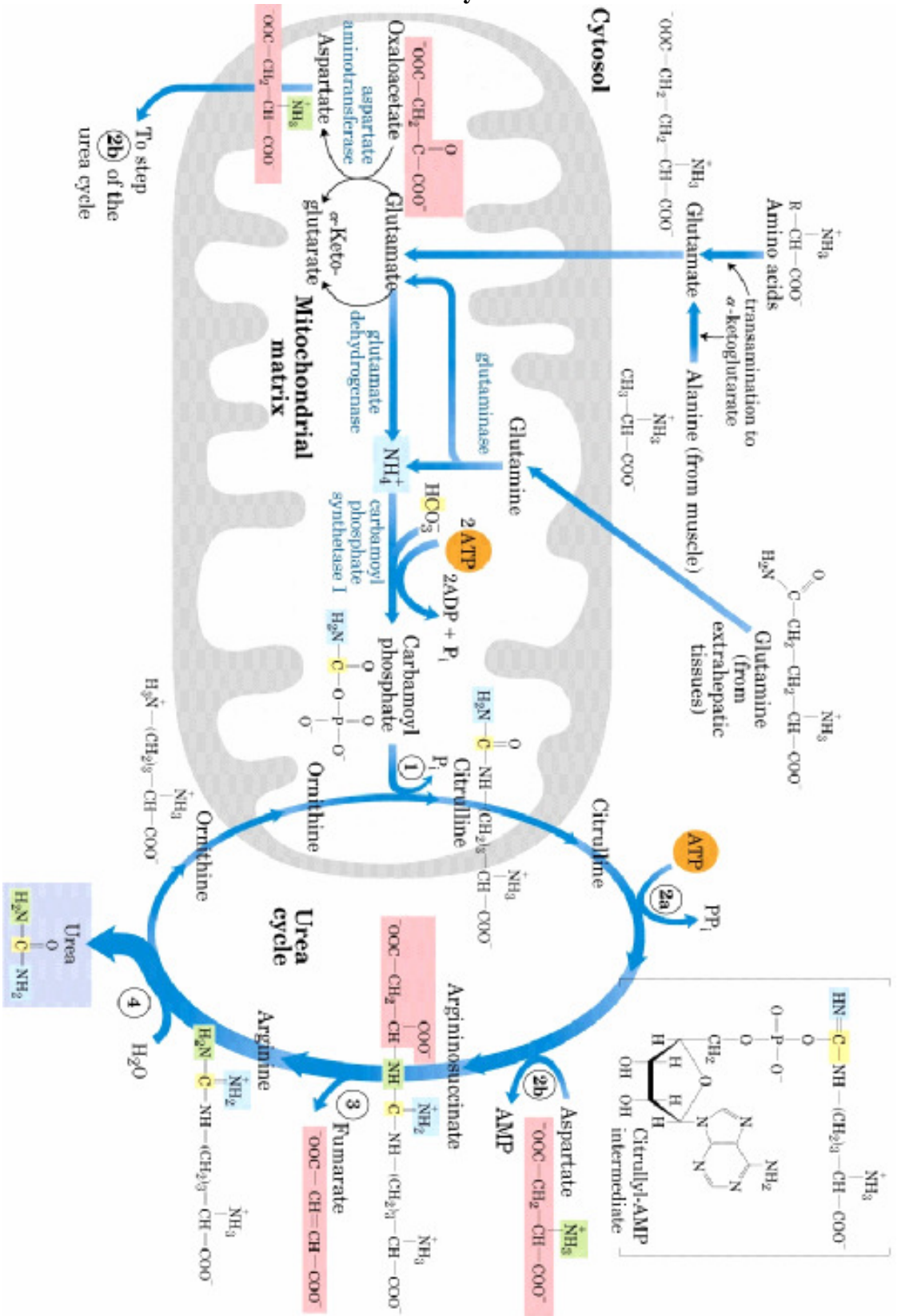
Ureotelic animals: many terrestrial vertebrates; also sharks



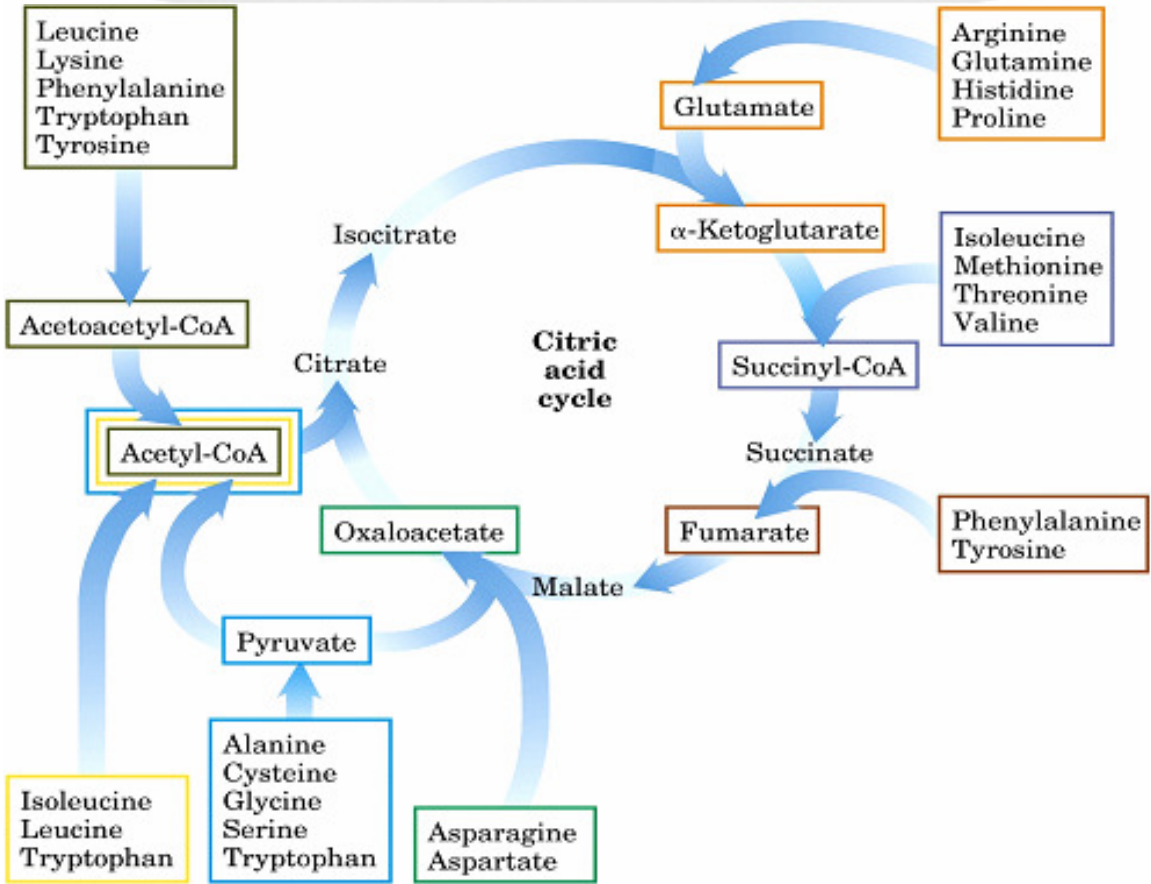
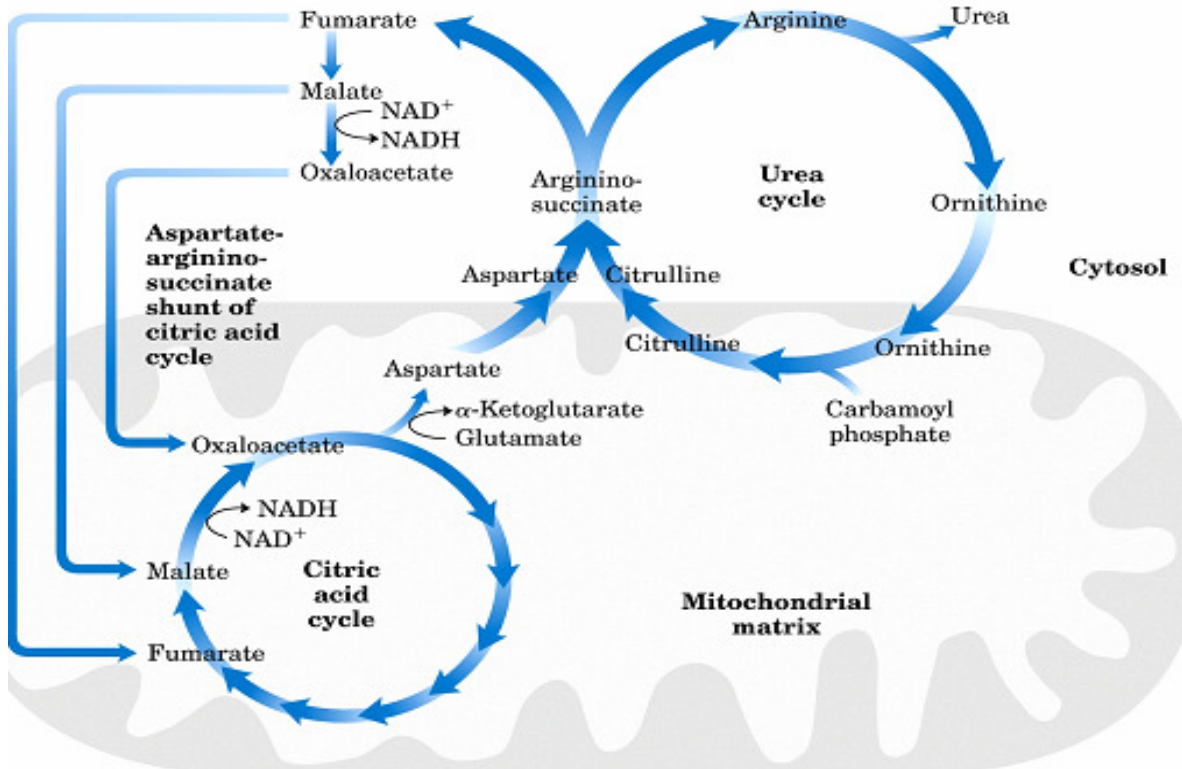
Uricotelic animals: birds, reptiles



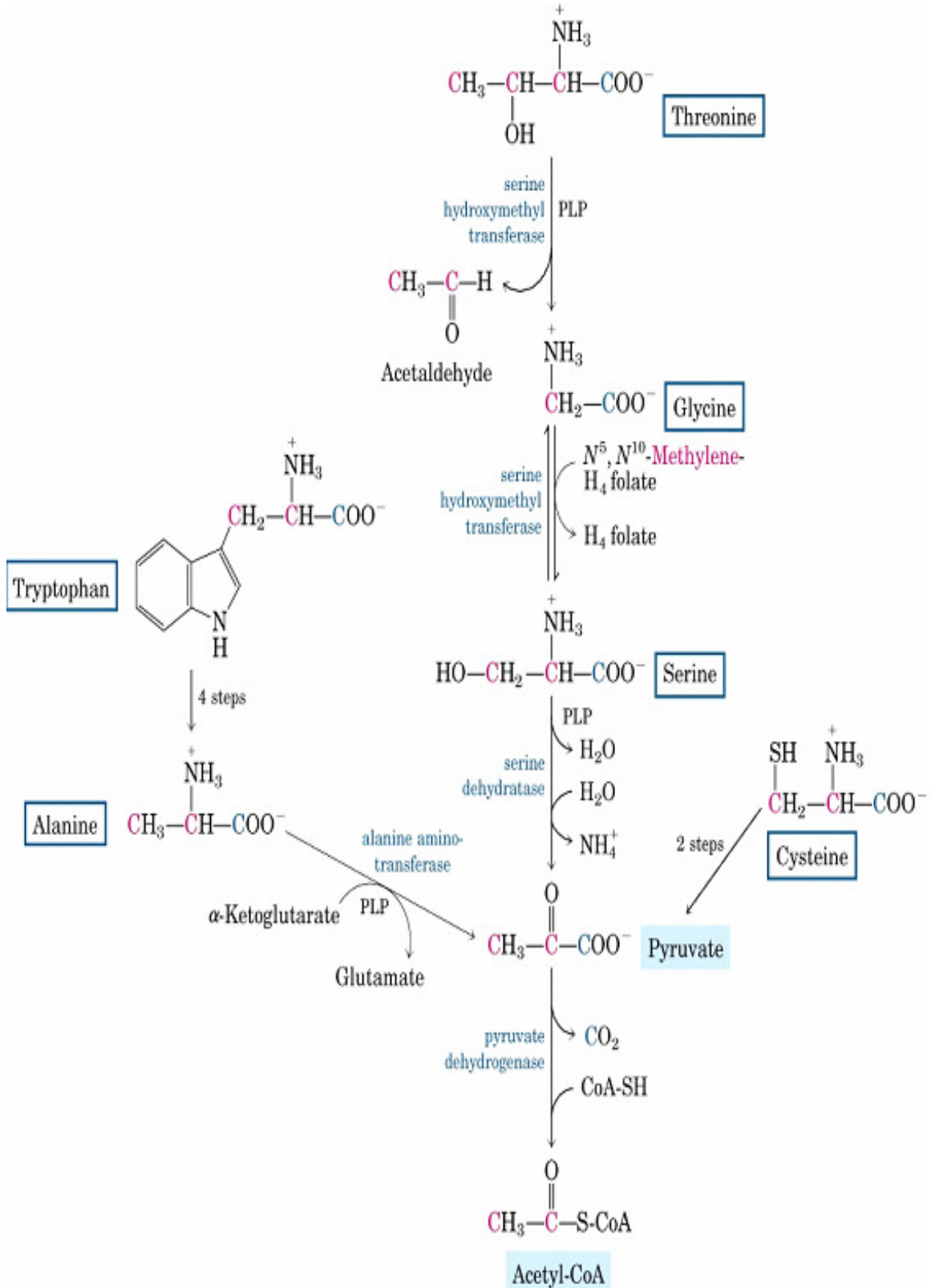
Urea cycle



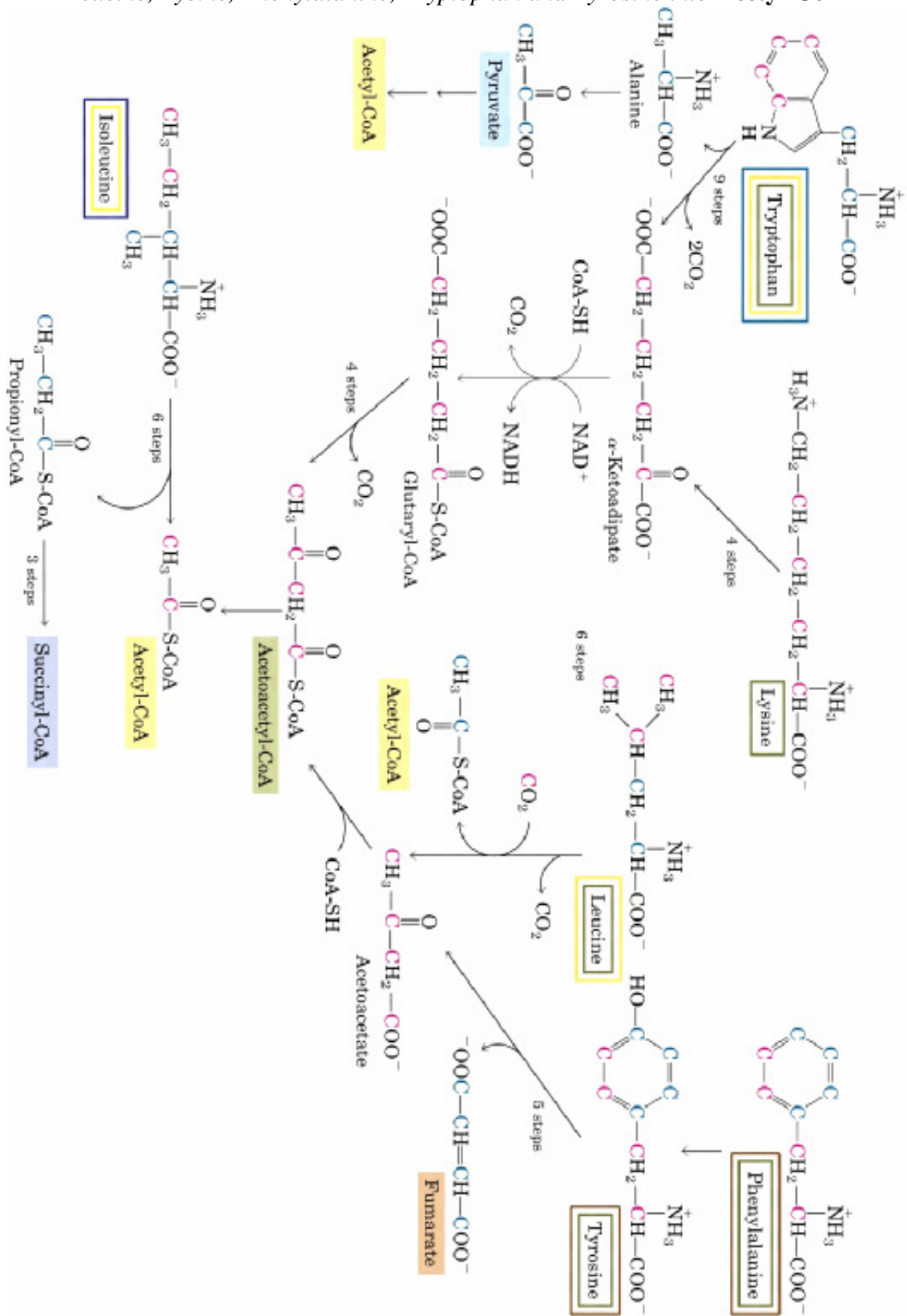
Links between urea cycle and citric acid cycle



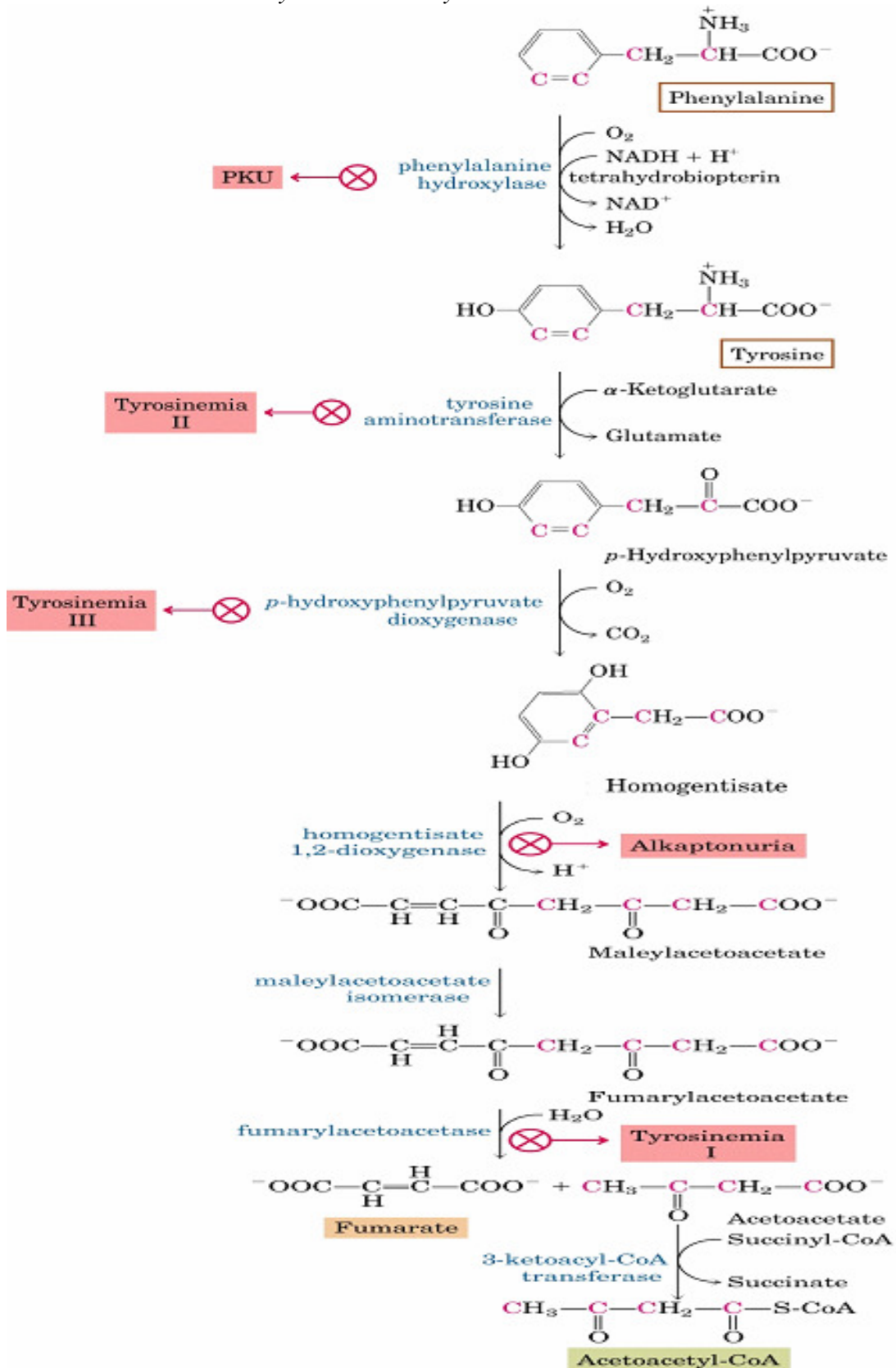
Alanine, Cysteine, Glycine, Serine and Tryptophan into Pyruvate



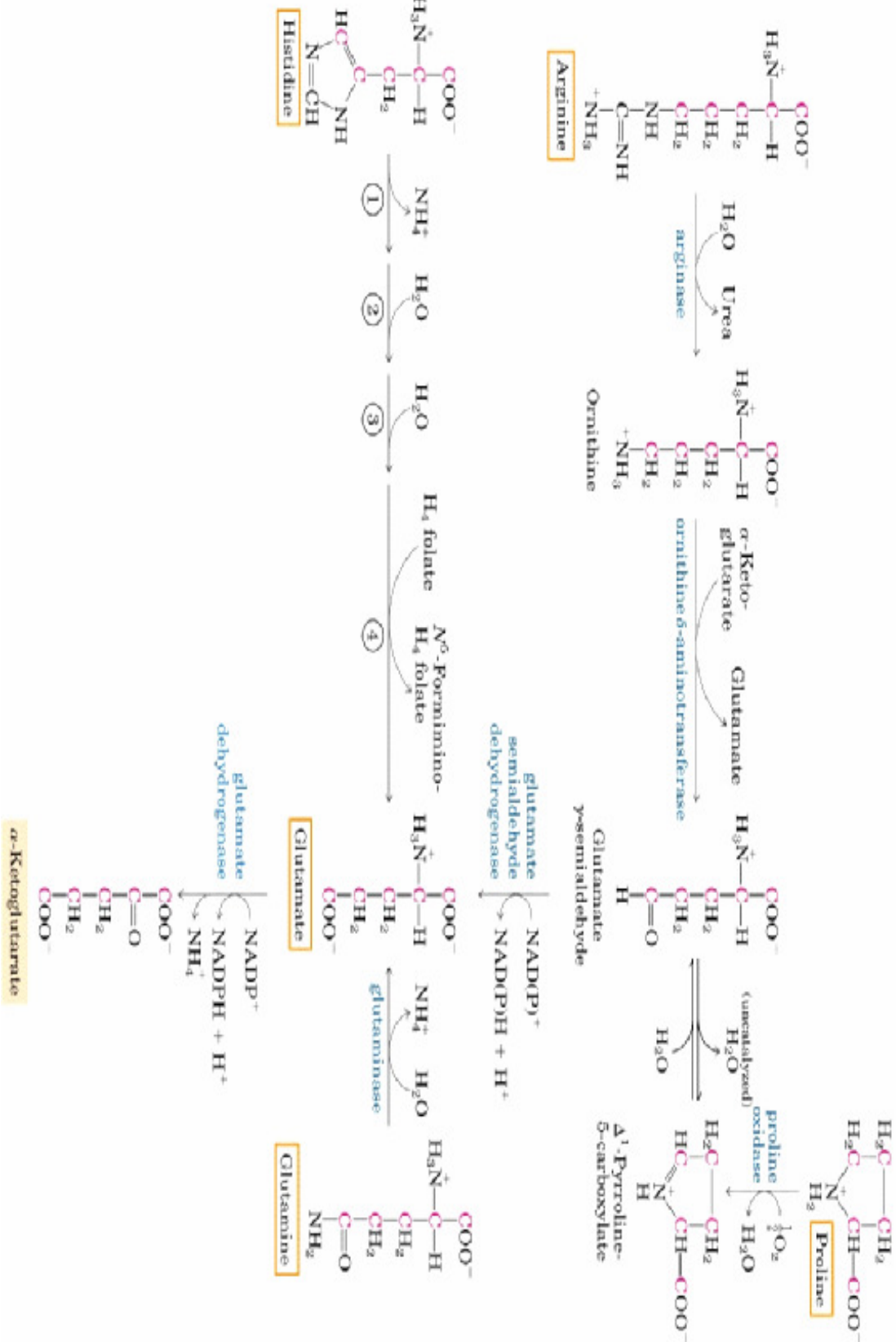
Leucine, Lysine, Phenylalanine, Tryptophan and Tyrosine into Acetyl-CoA



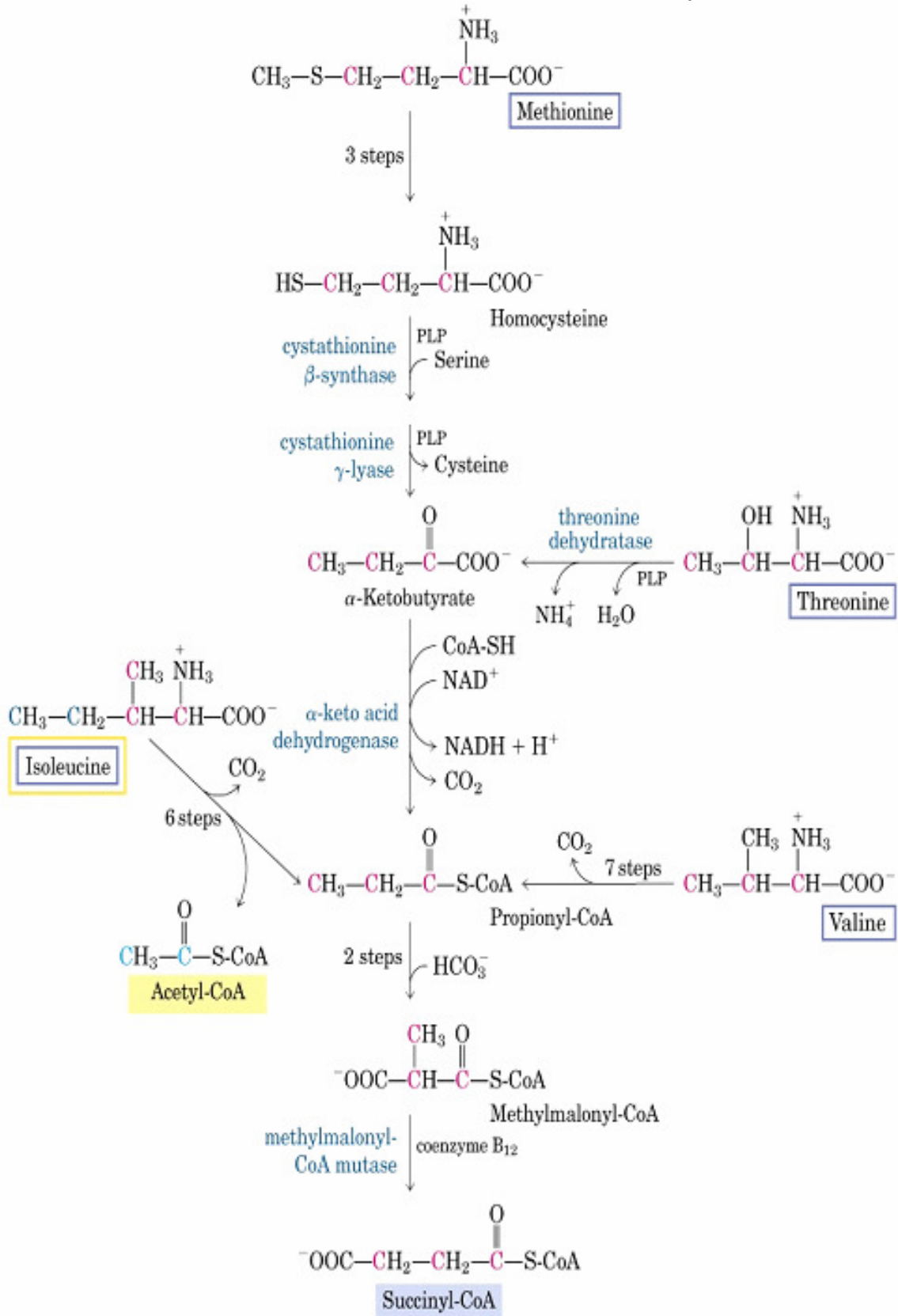
Phenylalanine and Tyrosine into Fumarate



Arginine, Glutamine, Histidine, Proline into Glutamate



Isoleucine, Methionine, Threonine, Valine into Succinyl-CoA



Asparagine and Aspartate into Oxaloacetate

