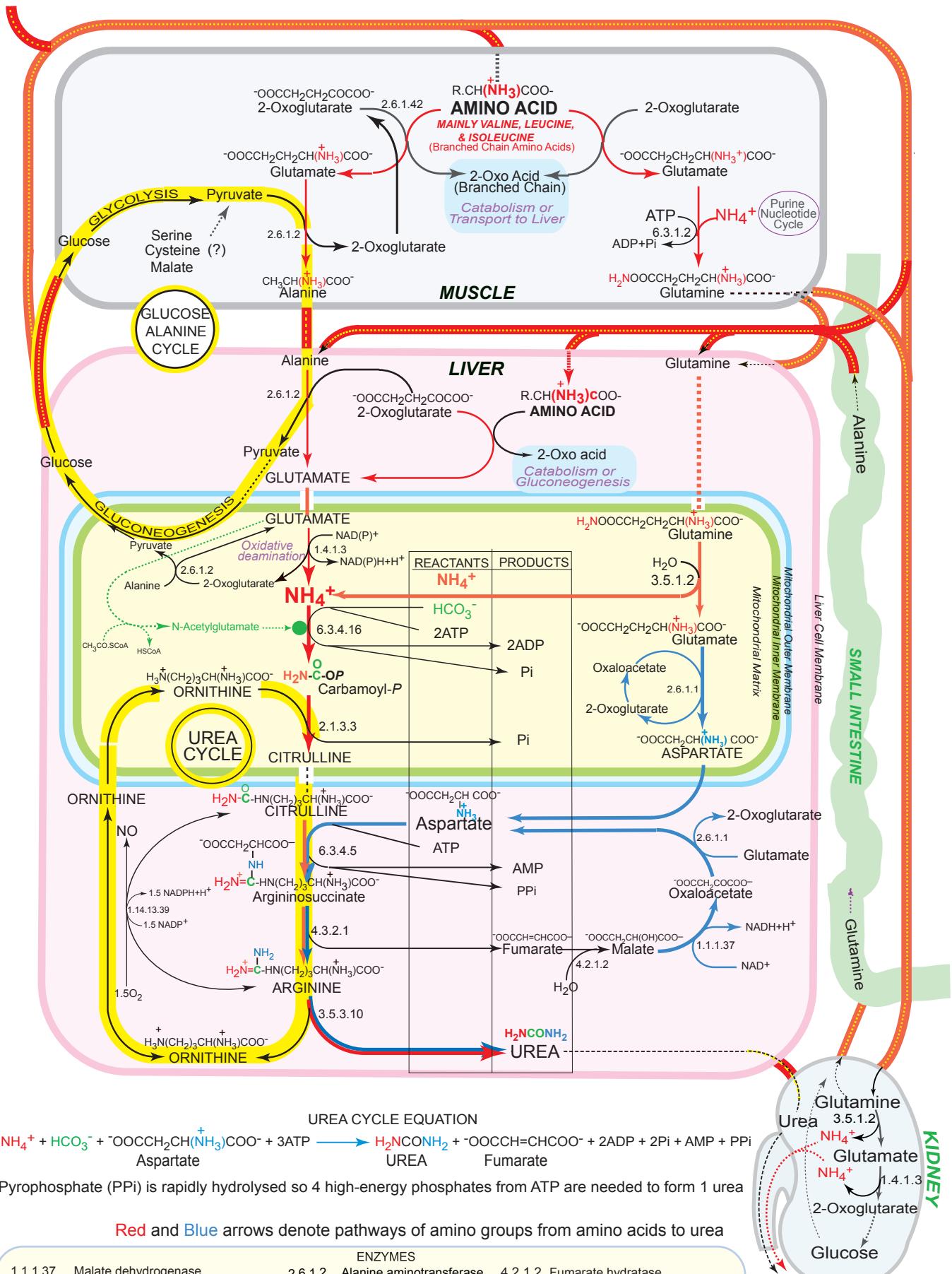


DEAMINATION OF AMINO ACIDS - THE UREA CYCLE



Pyrophosphate (PPi) is rapidly hydrolysed so 4 high-energy phosphates from ATP are needed to form 1 urea

Red and Blue arrows denote pathways of amino groups from amino acids to urea

ENZYMES		
1.1.1.37 Malate dehydrogenase	2.6.1.2 Alanine aminotransferase	4.2.1.2 Fumarate hydratase
1.4.1.3 Glutamate dehydrogenase (NAD(P))	2.6.1.42 Branched-chain amino acid aminotransferase	4.3.2.1 Arginosuccinate lyase
1.14.13.39 Nitric oxide synthase	3.5.1.2 Glutaminase	6.3.1.2 Glutamine synthase
2.1.3.3 Ornithine carbamoyltransferase	3.5.3.10 Arginase	6.3.4.5 Argininosuccinate synthase
2.6.1.1 Aspartate aminotransferase		6.3.4.16 Carbamoyl-phosphate synthase