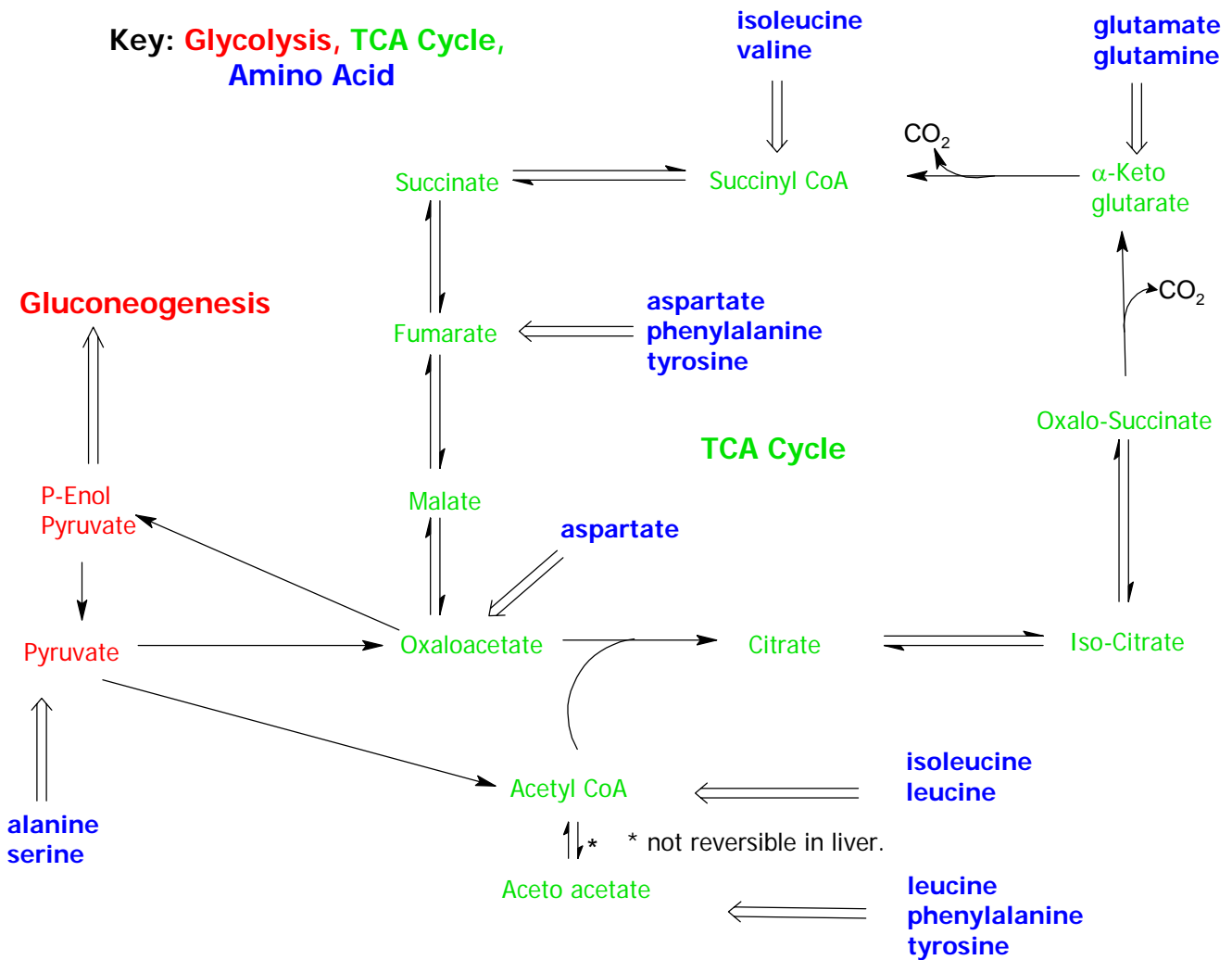


Amino Acid Entry into the TCA Cycle



Glycogenic:

Alanine	←→	Pyruvate	by transamination (E-PLP)
Serine	→	Pyruvate	by β-elimination (E-PLP)
Glutamate	←→	α-Ketoglutarate	by glutamic dehydrogenase (or result of transamination)
Glutamine	→	Glutamate	by glutamate synthase
Aspartate	←→	OAA	by transamination (E-PLP)
Aspartate	→	Fumarate	through Urea Cycle
Valine	→	Succinyl CoA	by valine metabolism

Ketogenic:

Leucine	→	Acetyl CoA + Acetoacetate	by leucine metabolism
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Glycogenic & Ketogenic:

Phenylalanine & Tyrosine	→	Fumarate + Acetoacetate	by metabolism of Phe & Tyr (class handout)
Isoleucine	→	Acetyl CoA + Succinyl CoA	by isoleucine metabolism