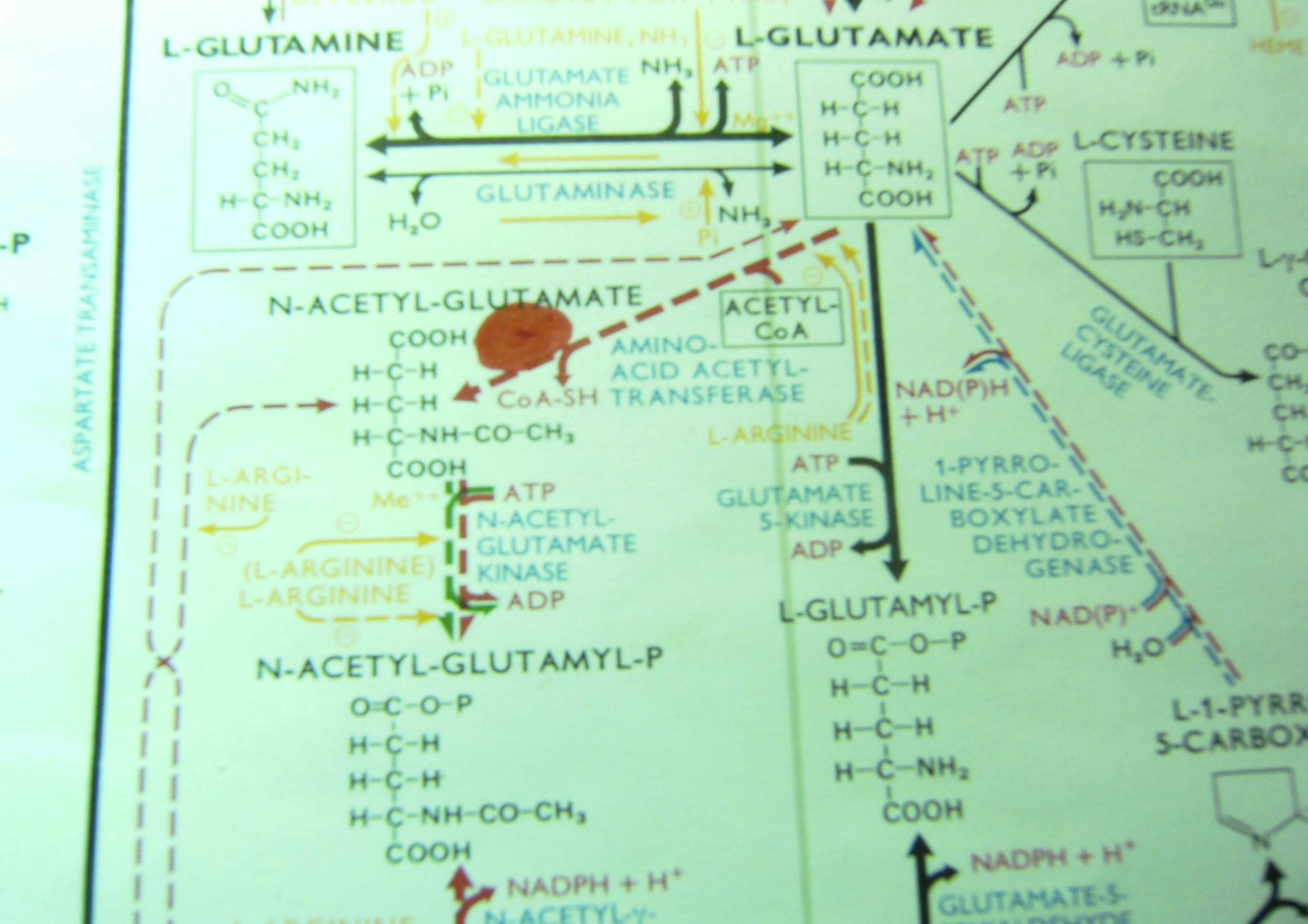
L-GLUTAMINE
L-GLUTAMINE, NH₃
L-GLUTAMATE
ADP + Pi
GLUTAMATE AMMONIA LIGASE
NH₃
ATP
Mg⁺⁺
GLUTAMINASE
H₂O
Pi
ATP
ADP + Pi
L-CYSTEINE
ATP
ADP + Pi
N-ACETYL-GLUTAMATE
ACETYL-CoA
AMINO-ACID ACETYL-TRANSFERASE
CoA-SH
L-ARGI-NINE
Me⁺⁺
ATP
N-ACETYL-GLUTAMATE KINASE
ADP
(L-ARGININE)
L-ARGININE
N-ACETYL-GLUTAMYL-P
NADPH + H⁺
N-ACETYL-γ-
L-ARGININE
ATP
GLUTAMATE 5-KINASE
ADP
L-GLUTAMYL-P
NAD(P)H + H⁺
1-PYRRO-LINE-5-CAR-BOXYLATE DEHYDRO-GENASE
NAD(P)⁺
H₂O
GLUTAMATE-CYSTEINE LIGASE
NADPH + H⁺
GLUTAMATE-5-
ASPARTATE TRANSAMINASE