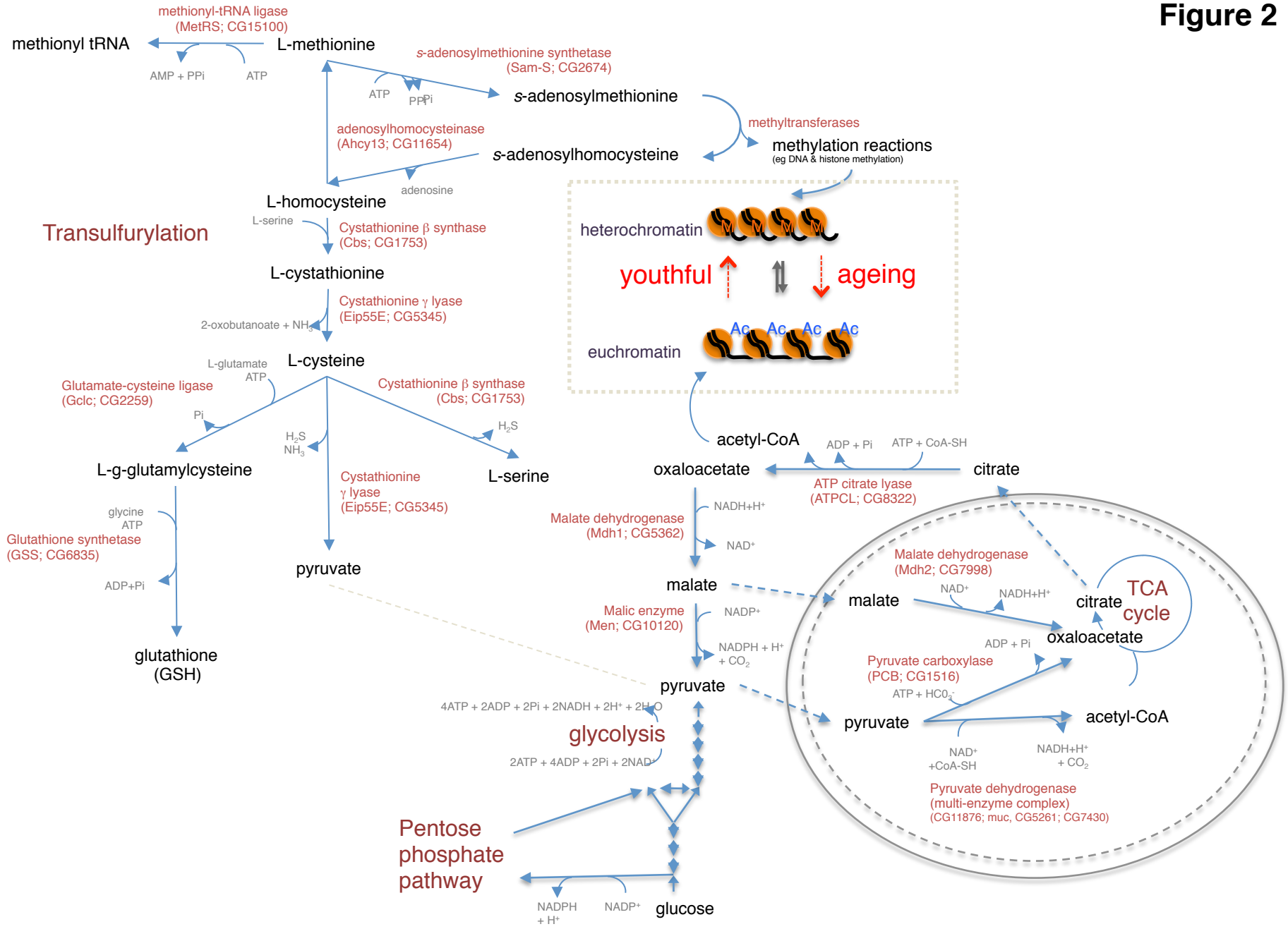
Figure 2


methionyl-tRNA ligase
(MetRS; CG15100)
methionyl tRNA
L-methionine
AMP + PPi
ATP
s-adenosylmethionine synthetase
(Sam-S; CG2674)
ATP
PPi
s-adenosylmethionine
methyltransferases
methylation reactions
(eg DNA & histone methylation)
adenosylhomocysteinase
(Ahcy13; CG11654)
s-adenosylhomocysteine
adenosine
L-homocysteine
Transulfurylation
L-serine
Cystathionine β synthase
(Cbs; CG1753)
L-cystathionine
Cystathionine γ lyase
(Eip55E; CG5345)
2-oxobutanoate + NH3
L-cysteine
L-glutamate
ATP
Glutamate-cysteine ligase
(Gclc; CG2259)
Pi
Cystathionine β synthase
(Cbs; CG1753)
H2S
H2S
NH3
L-g-glutamylcysteine
Cystathionine
γ lyase
(Eip55E; CG5345)
L-serine
glycine
ATP
Glutathione synthetase
(GSS; CG6835)
ADP+Pi
pyruvate
glutathione
(GSH)
heterochromatin
youthful
ageing
euchromatin
Ac
acetyl-CoA
ADP + Pi
ATP + CoA-SH
oxaloacetate
citrate
ATP citrate lyase
(ATPCL; CG8322)
NADH+H+
Malate dehydrogenase
(Mdh1; CG5362)
NAD+
malate
Malic enzyme
(Men; CG10120)
NADP+
NADPH + H+
+ CO2
pyruvate
4ATP + 2ADP + 2Pi + 2NADH + 2H+ + 2H2O
glycolysis
2ATP + 4ADP + 2Pi + 2NAD+
Pentose
phosphate
pathway
NADPH
+ H+
NADP+
glucose
Malate dehydrogenase
(Mdh2; CG7998)
malate
NAD+
NADH+H+
citrate
TCA
cycle
oxaloacetate
ADP + Pi
Pyruvate carboxylase
(PCB; CG1516)
ATP + HCO3-
pyruvate
acetyl-CoA
NAD+
+CoA-SH
NADH+H+
+ CO2
Pyruvate dehydrogenase
(multi-enzyme complex)
(CG11876; muc, CG5261; CG7430)