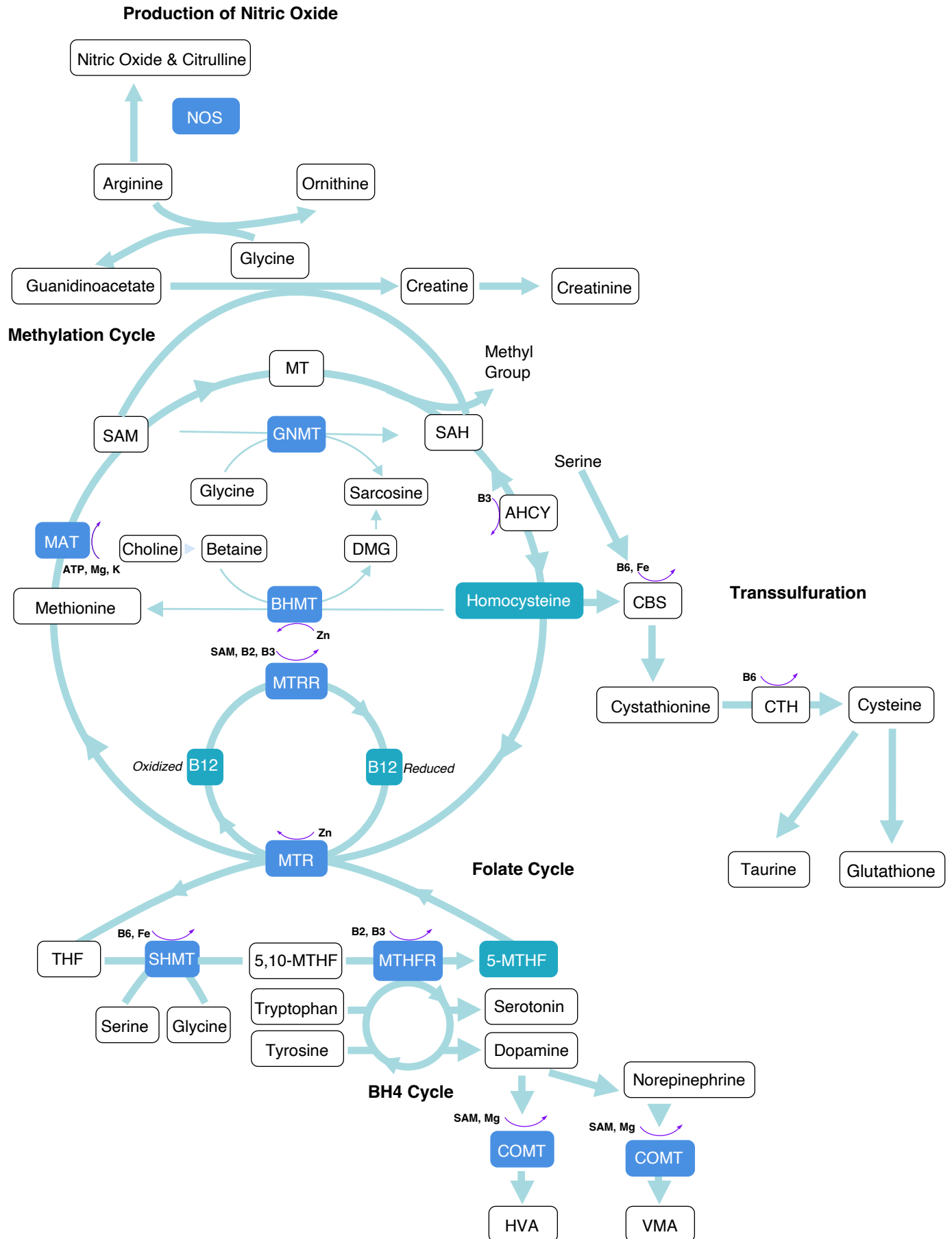







Methylation Pathways with Cofactors



Methylation Pathways with Cofactors

Key

Cofactors	
Primary Pathway	
Secondary Pathway	
Measured Gene	
Measured Biomarker	

Biomarkers

5-MTHF	5-Methyltetrahydrofolate
5,10-MTHF	5,10-Methylenetetrahydrofolate
DMG	Dimethylglycine
HVA	Homovanillic acid
SAH	S-adenosylhomocysteine
SAM	S-adenosylmethionine
THF	Tetrahydrofolate
VMA	Vanillylmandelic acid

Cofactors

BH4	Tetrahydrobiopterin
Fe	Iron
K	Potassium
Mg	Magnesium
SAM	S-adenosylmethionine
Zn	Zinc

Enzymes

AHCY	Adenosylhomocysteinase
BHMT	Betaine-homocysteine S-methyltransferase
CBS	Cystathionine beta-synthase
COMT	Catechol-O-methyltransferase
CTH	Cystathionine gamma-lyase
GNMT	Glycine N-methyltransferase
MAT	Methionine adenosyltransferase 1A
MT	Methyltransferases
MTHFR	Methylenetetrahydrofolate reductase
MTR	Methionine synthase
MTRR	Methionine synthase reductase
NOS	Nitric oxide synthase 3
SHMT	Serine hydroxymethyltransferase 1