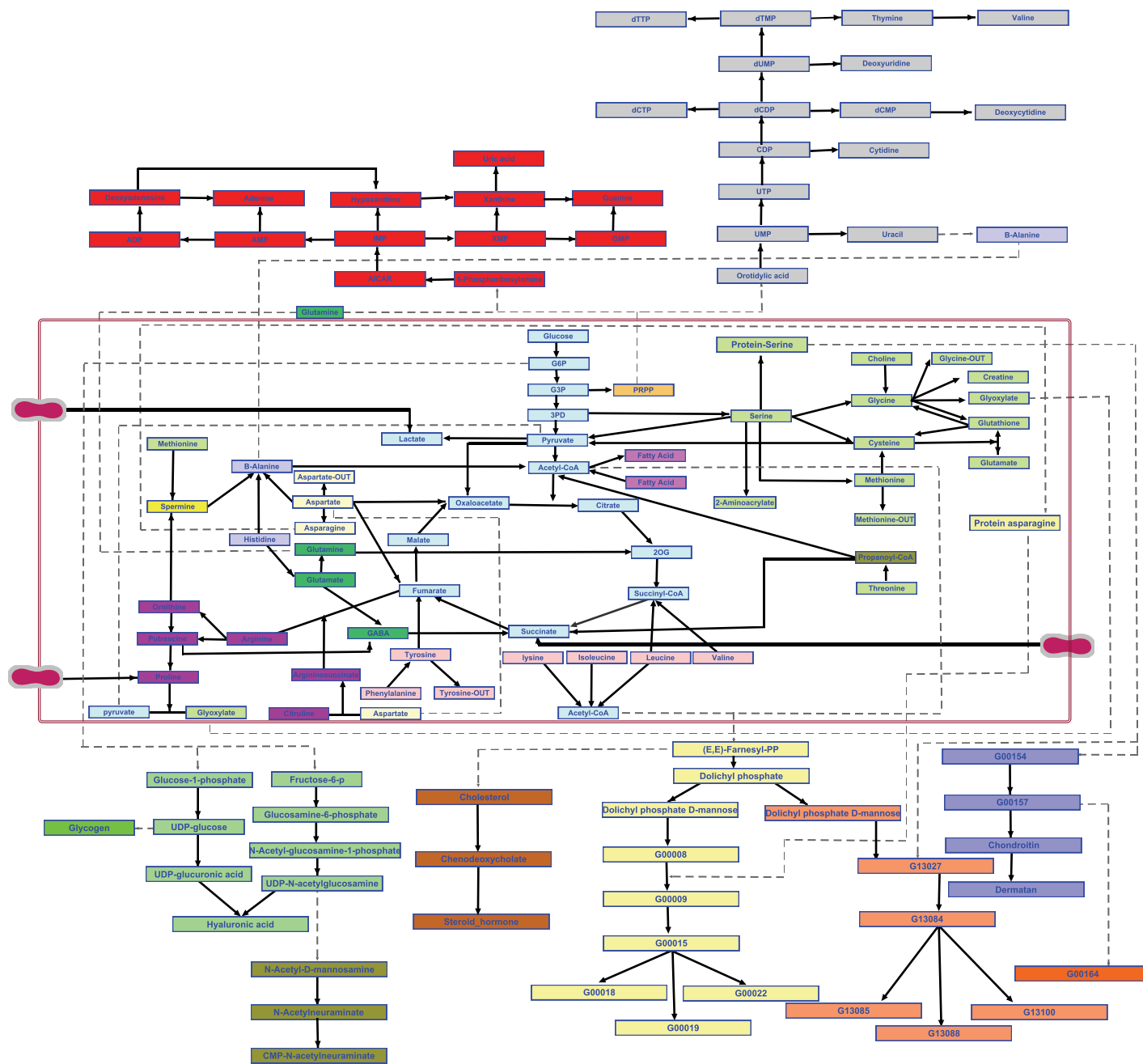


A

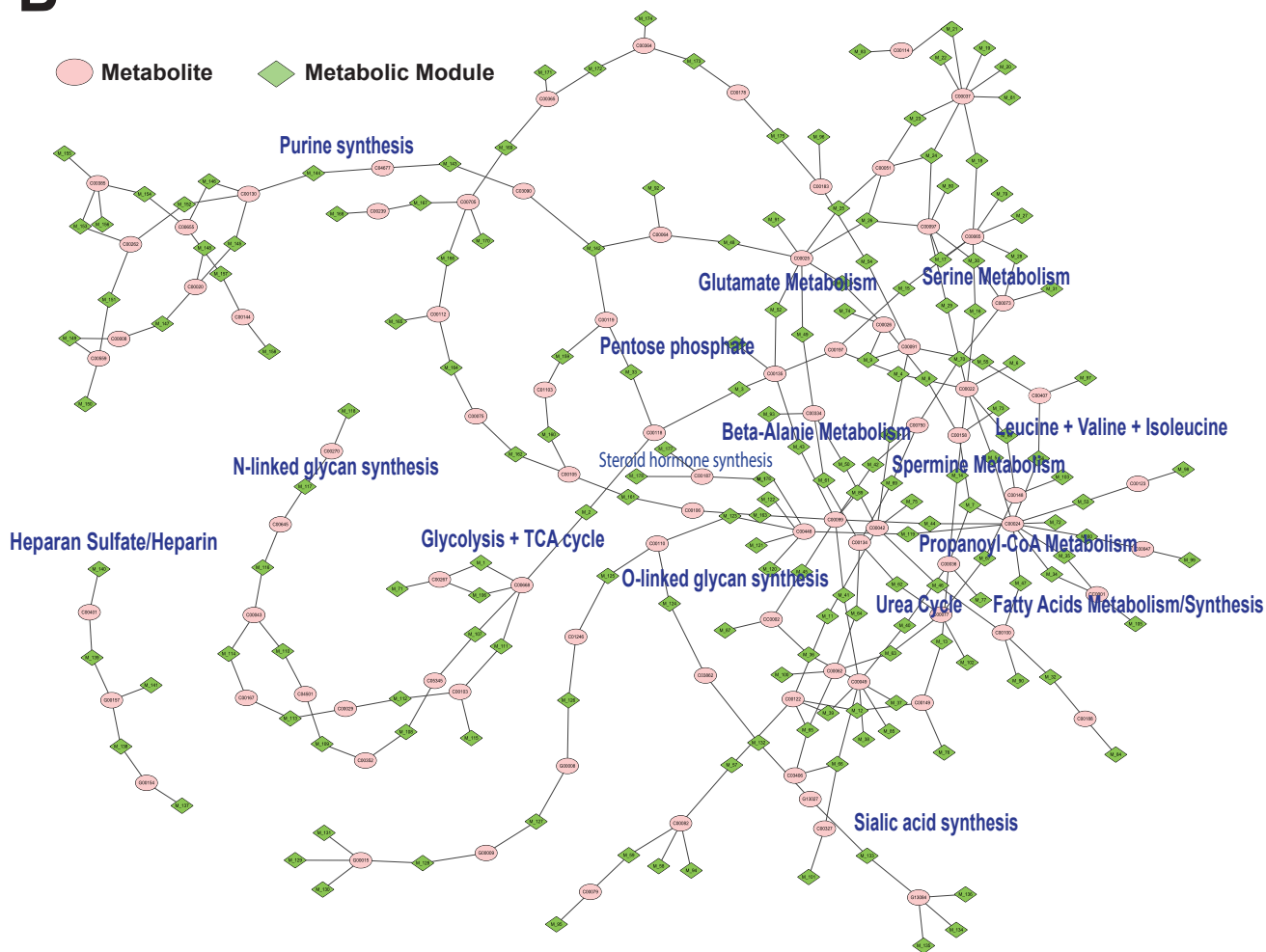


Color	Super Module class
Light Blue	Glycolysis + TCA cycle
Light Green	Serine Metabolism
Yellow	Pentose phosphate
Purple	Fatty Acids Metabolism/Synthesis
Light Yellow	Aspartate Metabolism
Light Blue	Beta-Alanine Metabolism
Brown	Propanoyl-CoA Metabolism
Dark Green	Glutamate Metabolism
Pink	Leucine + Valine + Isoleucine
Purple	Urea Cycle
Yellow	Spermine Metabolism
Magenta	Transporters
Light Green	Hyaluronic acid synthesis
Light Green	Glycogen synthesis
Yellow	N-linked glycan synthesis
Orange	O-linked glycan synthesis
Brown	Sialic acid synthesis
Light Blue	Chondroitin Sulfate/Dermatan Sulf
Orange	Heparan Sulfate/Heparin
Red	Purine synthesis
Grey	Pyrimidine synthesis
Brown	Steroid hormone synthesis

→	Direct reaction form of each module
→	Distant metabolic exchange
---	Same metabolite
G00154	(Xyl)1 (Ser)1
G00157	(Gal)2 (GlcA)1 (Xyl)1 (Ser)1
G00164	(Gal)2 (GlcA)2 (GlcNAc)2 (Xyl)1 (Ser)1
G13027	(Man)1 (Ser/Thr)1
G13084	(Gal)1 (GlcNAc)1 (Man)1 (Ser/Thr)1
G13100	(Gal)1 (GlcNAc)1 (LFuc)1 (Man)1 (Ser/Thr)1
G13088	(Gal)1 (GlcA)1 (GlcNAc)1 (Man)1 (S)1 (Ser/Thr)1
G13085	(Gal)1 (GlcNAc)1 (Man)1 (Neu5Ac)1 (Ser/Thr)1
G00008	(Glc)3 (GlcNAc)2 (Man)9 (P6ol)1
G00009	(Glc)3 (GlcNAc)2 (Man)9 (Asn)1
G00015	(GlcNAc)4 (Man)3 (Asn)1
G00022	(GlcNAc)7 (Man)3 (Asn)1

\*\* Only part of the transporters is illustrated

B



C

