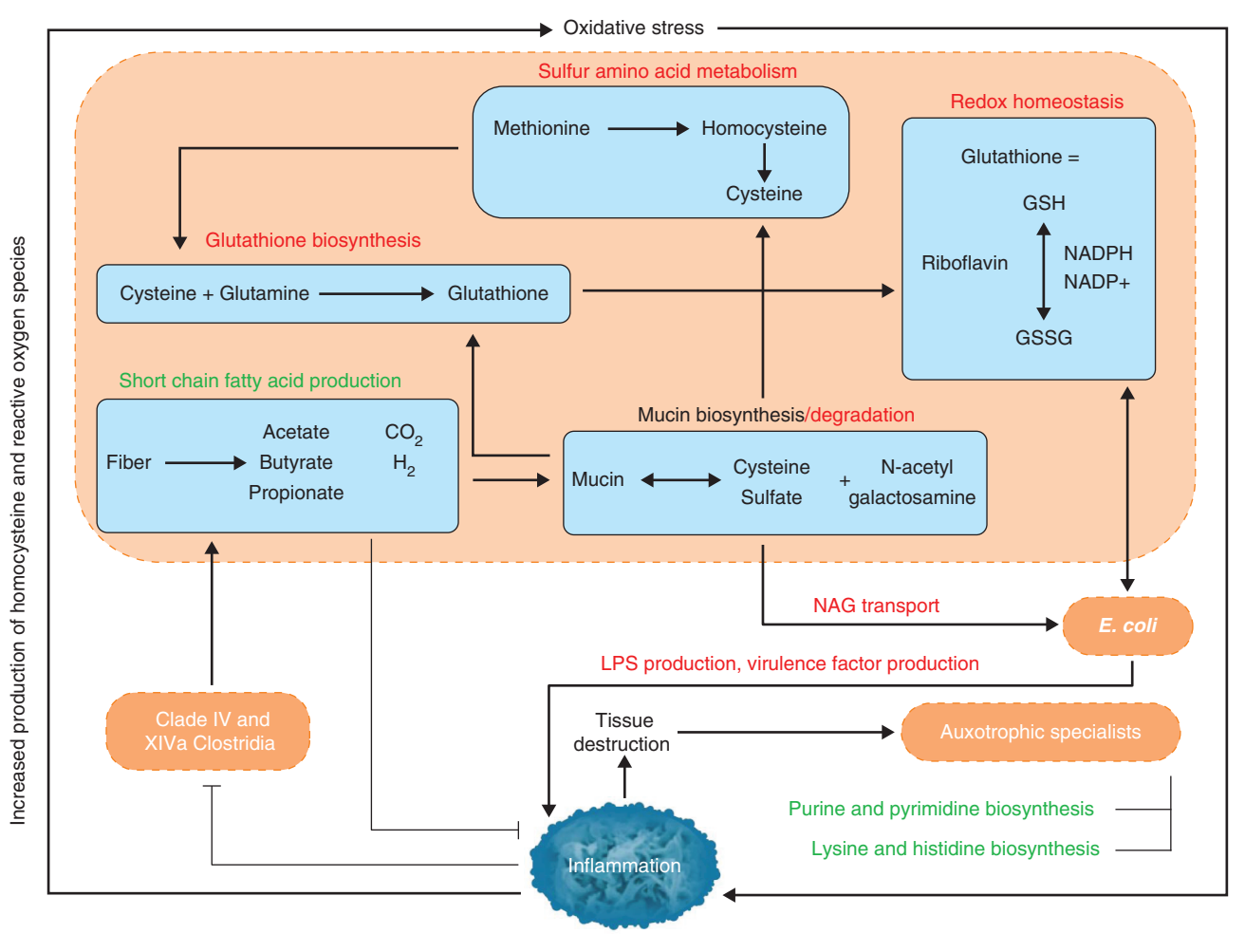
Oxidative stress
Increased production of homocysteine and reactive oxygen species
Sulfur amino acid metabolism
Methionine
Homocysteine
Cysteine
Redox homeostasis
Glutathione =
GSH
Riboflavin
NADPH
NADP+
GSSG
Glutathione biosynthesis
Cysteine + Glutamine
Glutathione
Short chain fatty acid production
Fiber
Acetate
Butyrate
Propionate
CO_2
H_2
Mucin biosynthesis/degradation
Mucin
Cysteine
Sulfate
+
N-acetyl
galactosamine
NAG transport
E. coli
LPS production, virulence factor production
Clade IV and
XIVa Clostridia
Tissue
destruction
Auxotrophic specialists
Purine and pyrimidine biosynthesis
Lysine and histidine biosynthesis
Inflammation