

Prolactin—role in mammary gland activity α -2 μ -globulin	High Present, especially in males	Questionable	Modulations of prolactin secretion will have different consequences for mammary carcinogenesis Protein necessary for some renal and perhaps bladder cancers
Stomach pH	4–5	1–2	Can affect activation/deactivation of some xenobiotics that undergo enterohepatic cycling
Bacterial flora Thermoregulation	Numerous	Few	Key controlling tissue in rats is brown fat; in human it is the dermal vasculature
Hematology (expressed relative to human values)			
GSH-peroxidase	10.2	1	Enzymes important in countering oxidative damage to cells
GSH reductase	0.2	1	
Superoxide dismutase	1.7	1	
DNA repair			
Excision repair	Low		May be a factor in determining lifespan and in defense against DNA alterations
Hepatic O ⁶ -alkyl guanine transferase	1	10	Key enzyme in detoxifying a common type of DNA–carcinogen adduct
Xenobiotic metabolism			
Epoxide hydrolase (liver)	Low	High	Enzyme important in detoxifying epoxides
Phase I and II enzymes			Difficult to predict transformation pathways in the two species