Figure 1. PBPK Model of EG and GA
Male & Female (pregnant & nonpregnant) Rat & Human

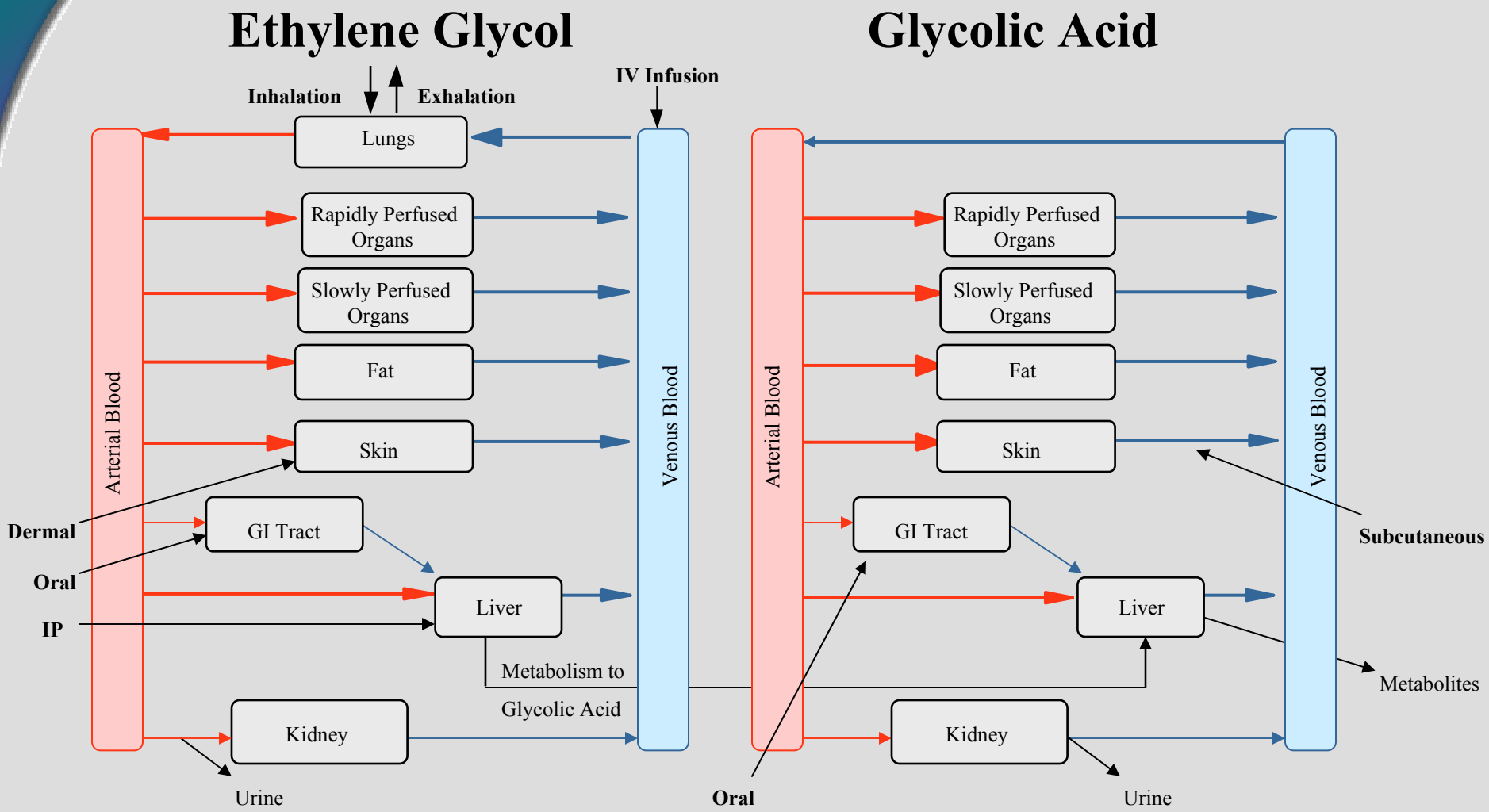


Figure 2. PBPK Model of EG and GA
Sources for In Vivo PK Data

SD Rats	
▪Oral gavage (EG), Male SD	Lenk et al., 1989
▪Oral gavage (EG), Male SD	Hewlett et al., 1989
▪Oral gavage (EG), Female SD	Sun, 1994
▪Oral gavage (EG), Female SD	Pottenger et al., 2001
▪Oral gavage (EG), Pregnant SD	Pottenger et al., 2001
▪Oral gavage (EG), Pregnant SD	Carney et al., 1997
▪Oral gavage (EG, GA), Pregnant SD	Carney et al., 1999
▪Subcutaneous injection (GA) Pregnant SD	Carney et al., 1999
▪Oral gavage (EG), Pregnant SD	Corley et al., 2002
▪Subcutaneous injusion (EG), Pregnant SD	Corley et al., 2002
Wistar Rats	
▪Oral gavage (GA), male Wistar	Harris & Richardson, 1980
▪IP injection (EG), male Wistar	Chou & Richardson, 1978
▪Oral gavage (EG, GA), male Wistar	Richardson, 1973
▪IV injection (EG), male Wistar	Weisner, 1986
▪Oral gavage (GA), male Wistar	Sangeeta et al., 1994
Other Rat Strains	
▪Oral gavage (EG), male Albino	McChesney et al., 1971
▪IV injection (EG), male F344	Marshall, 1982
▪IV injection (EG), female F344	Marshall, 1982
Humans	
▪Inhalation (EG), two male volunteers	Carstens et al., 2002
▪Oral (EG), single male	Reif, 1950
▪Poisoning Case Reports	Numerous

Figure 3. PBPK Model of EG and GA
Human PK Data From Poisoning Cases

Baud et al. (1987)

Baud et al. (1988)

Bowen et al. (1978)

Brent et al. (1999)

Cheng et al. (1987)

Curtin et al. (1992)

Harry et al. (1994)

Hewlett et al. (1986)

Introna et al. (1989)

Jacobsen et al. (1988)

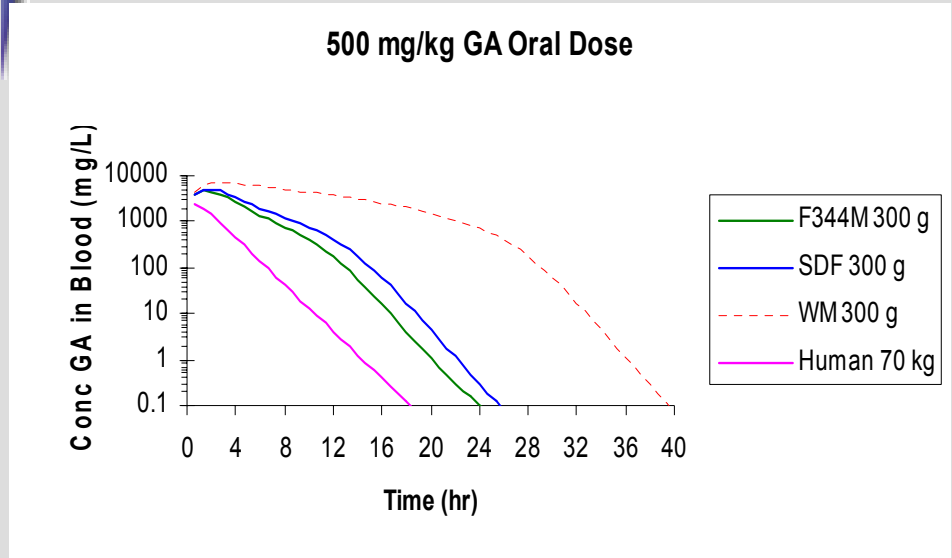
Malmlund et al. (1991)

Spillane et al. (1991)

Walder & Tyler (1994)

Figure 4. PBPK Simulations of the Kinetics and Renal Clearance of Glycolic Acid

(Ex: Oral dosing of 500 mg/kg GA; all rats 300 g BW vs. 70 kg human female)



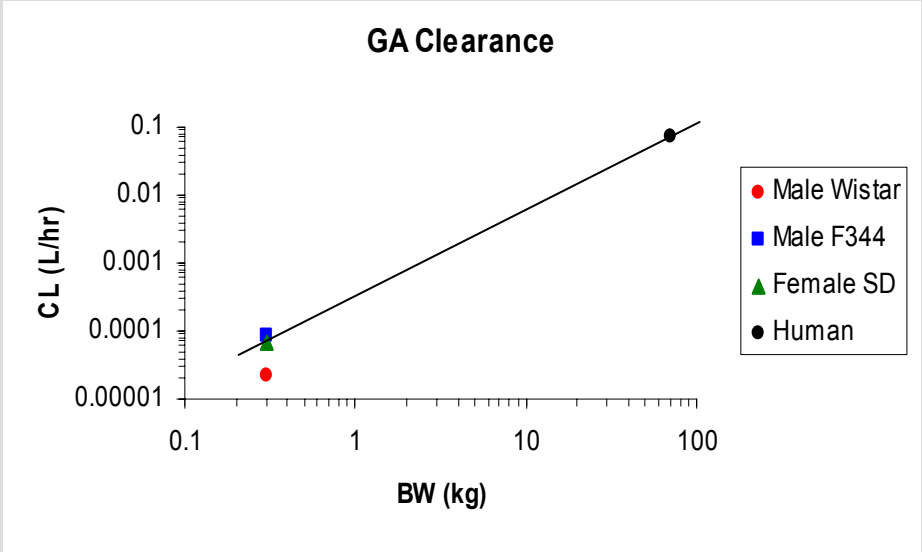
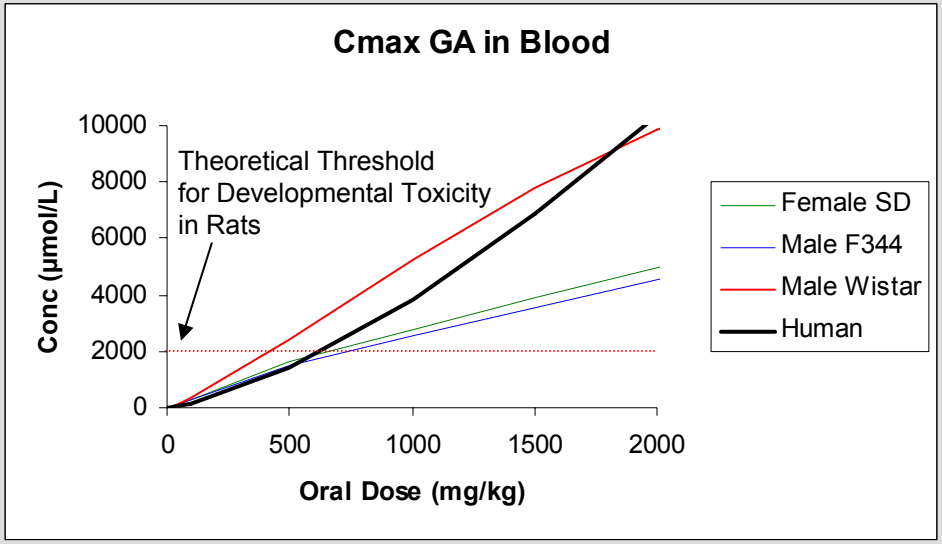


Figure 5. Comparison of Potential Internal Dose Surrogates--Oral
(Cmax and AUC for GA in Maternal Blood)

Bolus Oral Dosing of Ethylene Glycol



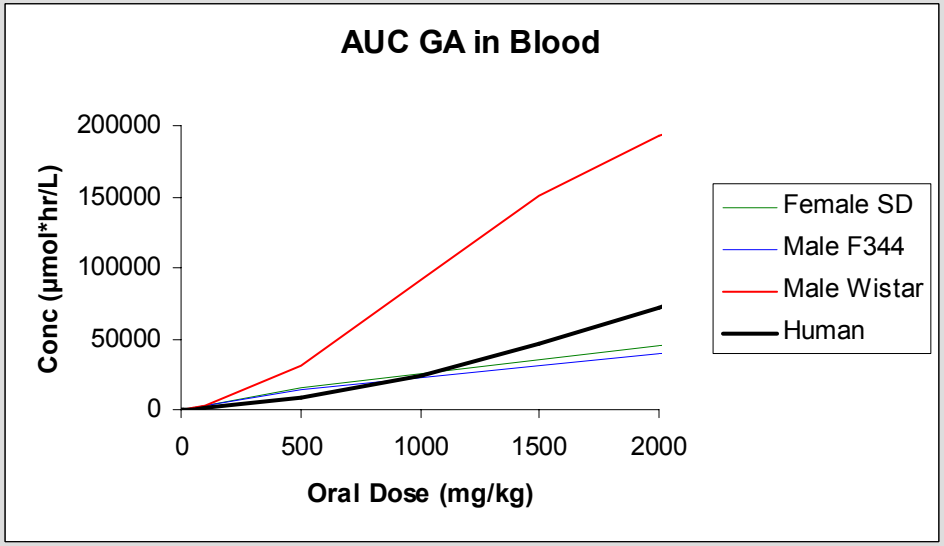
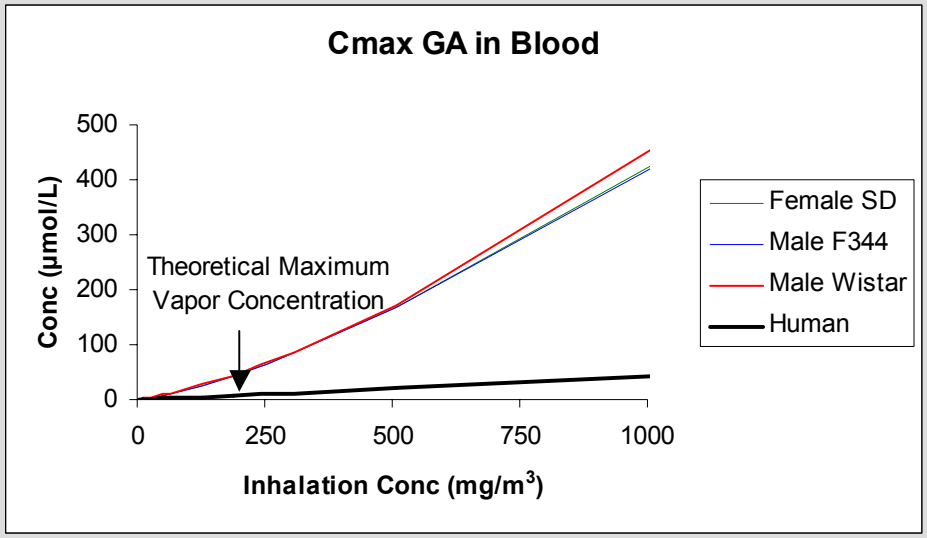
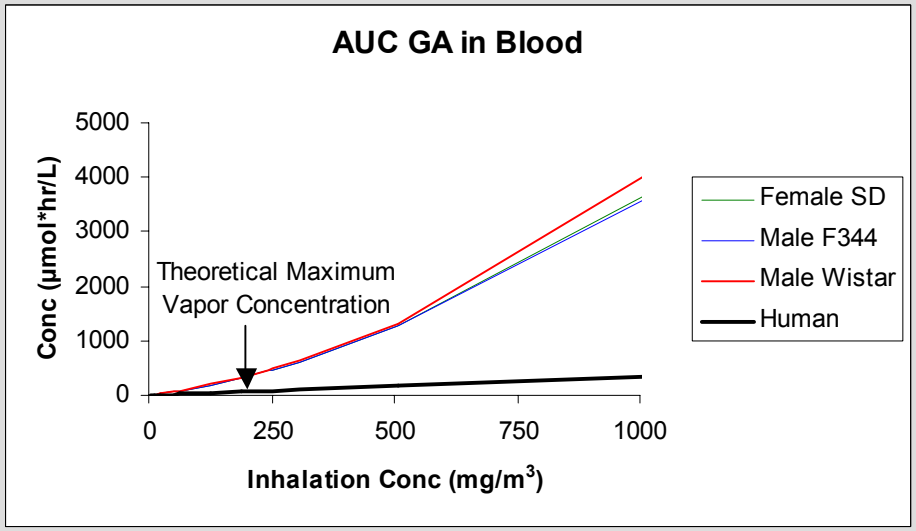


Figure 6. Comparison of Potential Internal Dose Surrogates--Inhalation
(Cmax and AUC for GA in Maternal Blood)





Note: Theoretical Saturated Atmosphere at 20C is ~79 ppm (~200 mg/m^3) for EG Vapor