

Phase 1	Biomarkers	Phase 2	Biomarkers	Key nutrients
CYP 1A1	Estradiol Estrone Ethoxyresorufin, PAH, Benzopyrene	Glutathione (Reduced Glutathione)	Napthalene Aspatame MSG	Cysteine, NAC, Glycine, Glutamic acid, P5P, Vit C, Pantethine, EFAs, Brassicas
CYP 1A2 10%	Caffeine Estradiol Estrone Methoxyresorufin	Glucuronid- ation (UDP- Glucuronic acid)	Benzoic acid Bilirubin Phenylbarbitol Vanillin	Glucuronic acid NA Mg, Fish oil
CYP 1B1	Estradiol Estrone Ethoxyresorufin PAH	Sulfation (PAPs Methionine SAM Taurine Gluc sulphate MSM Sulfur a-Lipoic)	Acetaminophen (Paracetamol) Acetone DDT /DDE Ethylene glycol Toluene TRIC	PAPs Methionine, SAM Cysteine,P5P Glutathione, Taurine Mol Mg Vit B2, Mn Glucosamine sulfate, MSM, Sulfur, a-Lipoic acid
CYP 2B4	BHT Phenobarbital	Sulfoxidation (Sulfite oxidase)	Sodium metabisulfite	Cysteine Mol, Mg, B, Mn
CYP 2C9 10%	Ibuprofen Warfarin	Acetylation (Acetyl CoA)	Isoniazide Newsprint Petroleum SLS	Acetyl CoA factor Pantethine Vit B5 P-5-P Cysteine Mg Vit C
CYP 2C19	Phenobarbital Diazepam	Methylation (SAM)	Caffeine Phenol Nicotine	SAM factors Methionine Mg Zn
CYP 2D6 30%	Codeine	Glycine	Aspirin Choly-CoA Sodium benzoate	Glycine, Co-factors (Folic Acid, P5P, Mg, Zn, B2, B3)
CYP 2E1	Acetaminophen (Paracetamol) Benzene Carbon tetrachloride Ethanol Isoniazid	Taurine	Carbon tetrachloride Choly-CoA	Taurine Cysteine Vit B3 Iron P-5-P Mg Zn Cu Vit C
CYP 3A4 50%	Acetaminophen Aflatoxin B1, G1 Codeine Nicotine Testosterone Warfarin	Cysteine		Cysteine Methionine Mg Zn P5P VitC
		Glutamine		Glutamine Mg
		Threonine		Threonine
		Tryptophan	Fungal toxin	Tryptophan
		Ornithine	Ammonia	