



NTP
National Toxicology Program

NTP Board of Scientific Counselors Technical Reports Review Subcommittee

Report from the June 12, 2006 Meeting





α Methylstyrene

Production of resins and polymers

Sex/Species	Evidence	Neoplastic lesions
MR	SE	Renal tubule adenoma and carcinoma
FR	NE	-
MM	EE	Hepatocellular adenoma or carcinoma
FM	CE	Hepatocellular adenoma and carcinoma



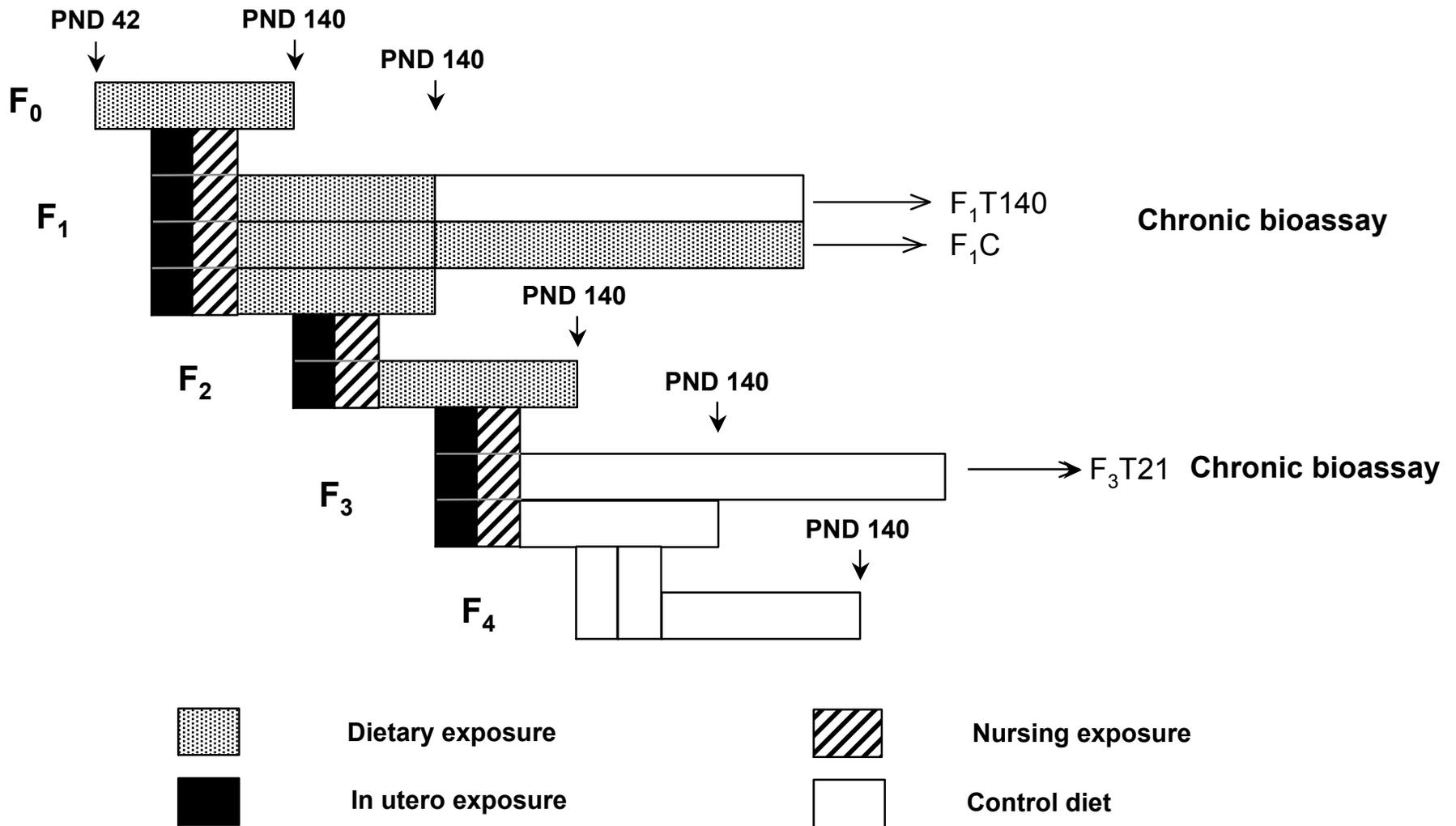
Methylene Blue Trihydrate

Dye, antidote for methemoglobinemia, hair colorant

Sex/Species	Evidence	Neoplastic lesions
MR	SE	Pancreatic islet cell adenoma, or adenoma and carcinoma (combined)
FR	NE	-
MM	SE	Carcinoma, or adenoma and carcinoma (combined) in the small intestine
FM	EE	Malignant lymphoma



Multigeneration Dosing Scheme





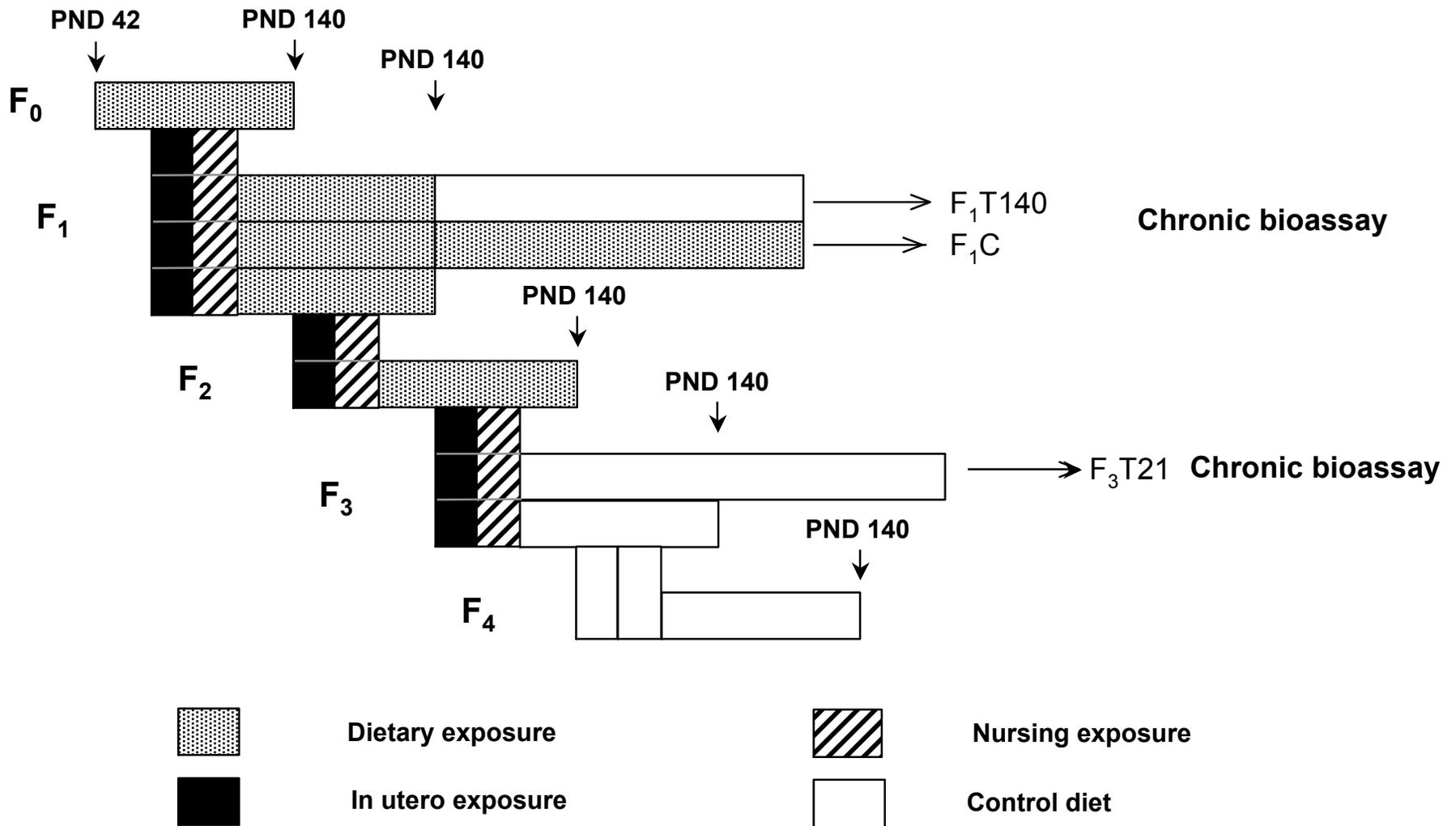
Genistein (Multigenerational)

Naturally occurring phytoestrogen in soy products

Adverse effects	Male	Female
Decrease in pup birth weight	F1 and F5	F5
Decreased preweaning body weight of pup	F1 - F4	F1 - F4
Reduced litter size	F2	F2
Decreased anogenital distance	F1	F1 - F3
Mammary gland hyperplasia	F0 - F2	
Renal tubule calcification	F1 and F2	
Accelerated vaginal opening		F1 - F3
Altered estrus cycle		F1
Decreased adult terminal body weight	F1	F0 - F2



Multigeneration Dosing Scheme





Genistein (Bioassay)

Naturally occurring phytoestrogen in soy products

Times of Exposure	Sex	Evidence	Neoplastic Lesions
F₁ Conception to 2yrs. old	M	NE	-
	F	SE	Mammary gland adenoma or adenocarcinoma; pituitary gland neoplasms
F₁ Conception to 20 weeks old	M	NE	-
	F	EE	Pituitary gland neoplasms
F₃ Conception to PND 21	M	NE	-
	F	EE	Mammary gland adenoma or adenocarcinoma