

**Table 5.6**

**ESTIMATED COSTS PER CHEMICAL FOR TIER 1 SCREENING**

NAME OF ASSAY	COST	
	<i>Required Endpoints Only in Mammalian Assays</i>	<i>Required and Optional Endpoints in Mammalian Assays</i>
Rat Estrogen Receptor Equilibrium Exchange Assay	\$7,200.00	\$7,200.00
Rat Androgen Receptor Equilibrium Exchange Assay	\$7,300.00	\$7,300.00
Steroidogenesis Assay in Minced Testes	\$11,600.00	\$11,600.00
<i>Uterotrophic Assay in Ovariectomized Rats</i>	<i>\$29,600.00</i>	<i>\$70,100.00</i>
<i>The "Hershberger" Assay in Male Rats</i>	<i>\$37,200.00</i>	<i>\$100,700.00</i>
<i>Pubertal Assay in Female Rat</i>	<i>\$38,900.00</i>	<i>\$86,700.00</i>
Fish Gonadal Recrudescence Assay	\$37,800.00	\$37,800.00
Frog Metamorphosis Assay	\$22,200.00	\$22,200.00
<b>SUBTOTAL (ASSAYS ONLY)</b>	<b>\$191,800.00</b>	<b>\$343,600.00</b>
ANALYTICAL COSTS	\$30,000.00	\$30,000.00
<b>TOTAL for T1S BATTERY</b>	<b>\$221,800.00</b>	<b>\$373,600.00</b>

Values listed are the mean of the estimates for each assay obtained from a cost estimate survey conducted by Applied Pharmacology and Toxicology, Inc. in May 1998. Appendix S contains a detailed report of the survey including the design, results, and raw data.

"Required" and "optional" endpoints for *in vivo* mammalian screening assays are listed in Appendix L. Cost Estimates in the center column, designated "Required Endpoints Only," assume that only the required endpoints are assessed in the Uterotrophic assay, the Hershberger assay, and the Pubertal female assay. Cost estimates in the right column, designated "Required and Optional Endpoints," assume that both required and optional endpoints are assessed in the Uterotrophic assay, the Hershberger assay, and the Pubertal female assay. Subtotals and Totals otherwise include the same mean cost estimates for assays other than the three *in vivo* mammalian assays.

The analytical cost estimate assumes that the entire battery is conducted in the same laboratory and that one analytical determination of the identity and stability of the test substance will suffice for the entire screening battery. In practice, more than a single analytical determination may be necessary. If so, the analytical costs would be greater than indicated here.

**Table 5.7**  
**ESTIMATED COSTS PER CHEMICAL FOR TIER 2 TESTING**

<b>Name of Test</b>	<b>Cost of Test</b>	<b>Analytical Cost</b>
Two-Generation Reproductive Toxicity Study in Rats	\$499,000.00	\$50,000.00
Avian Reproductive Toxicity Test	\$172,100.00	\$55,000.00
Fish Life Cycle Toxicity Test	\$221,400.00	\$80,000.00
Mysid Toxicity Test	\$38,600.00	\$23,000.00
Amphibian Reproductive / Developmental Toxicity Test	\$75,400.00	\$35,000.00
<b>Subtotal</b>	<b>\$1,006,500.00</b>	<b>\$243,000.00</b>
<b>TOTAL for T2T BATTERY</b>	<b>\$1,249,500.00</b>	

Values listed are the mean of the estimates for each test obtained from a cost estimate survey conducted by Applied Pharmacology and Toxicology, Inc. in May 1998. Appendix S contains a detailed report of the survey including the design, results, and raw data.

Alternative Tier 2 tests were not included for purposes of calculating total costs for the T2T battery. Since the alternative tests are intended as substitutes for the two-generation reproductive toxicity study in rats, it seems unlikely that a chemical substance or mixture would be subjected to the two-generation test and the alternative tests as part of a single Tier 2 battery. Cost estimates were for the EDSTAC's recommended enhancements to the basic set of endpoints required in guideline studies, and do not necessarily reflect the additional costs of assessing endpoints that may be triggered by results in some tests.