

Peer Review of Draft NTP Technical Reports

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NTP Technical Reports Peer Review Meeting
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National Toxicology Program (NTP) Technical Reports

- Technical Reports present NTP studies that were conducted to evaluate potential toxicity and/or carcinogenic activity of substances due to public health concern
 - Peer-review of draft Technical Reports:
 - TR-599: Sodium Tungstate
 - TR-600: Di-n-butyl phthalate (DBP)
 - TR-601: Di(2ethylhexyl) phthalate (DEHP)
- } Phthalate Initiative
- These reports present Level of Evidence (LOE) conclusions for the potential carcinogenic activity of the chemical tested.
 - Additional conclusion statements are in the DEHP report evaluating perinatal exposure contribution to chronic toxicity and carcinogenic activity



Levels of Evidence (LOE) for Carcinogenic Activity

- **Clear evidence of carcinogenic activity**
 - Dose-related (i) increase of malignant neoplasms, (ii) increase of a combination of malignant and benign neoplasms, or (iii) marked increase of benign neoplasms if there is an indication from this or other studies of the ability of such tumors to progress to malignancy
- **Some evidence of carcinogenic activity**
 - Chemical-related increased incidence of neoplasms in which the strength of the response is less than that required for clear evidence
- **Equivocal evidence of carcinogenic activity**
 - Marginal increase of neoplasms that may be chemical related
- **No evidence of carcinogenic activity**
- **Inadequate study**



Factors Considered in Applying LOE

- Statistics
- Dose-relationship
- Common versus uncommon lesions
- Concurrent and historical control data
- Multiplicity
- Latency
- Progression: benign to malignant and metastases
- Pre-neoplastic lesions
- Survival
- Body weight effects
- Structure-activity correlations
- Genetic toxicology
- Findings in the other sex or species
- Combinations of neoplasms in the same tissue



- The concurrent control is more important for comparison than the historical control in interpreting findings
- However, historical control data can provide context of the findings.
- NTP historical controls, including current studies, are present in the reports and are publicly available:
 - <https://ntp.niehs.nih.gov/results/dbsearch/historical>



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Questions?





Charge for the Peer-Review Panel

- Review and evaluate the scientific and technical elements of the study and its presentation.
- Determine whether the study's experimental design, conduct, and findings support NTP's conclusions under the conditions of this study.