Peer Review of the Draft NTP Technical Reports on Cell Phone Radiofrequency Radiation

Chad Blystone, PhD, DABT
Toxicology Branch
National Institute of Environmental Health Sciences

NTP Technical Reports Peer-Review Meeting
March 26-28, 2018
NTP conducts rodent toxicity and cancer studies on agents of public health concern to identify potential hazards for human health.

NTP technical reports describe the methods, results, and NTP conclusions as “levels of evidence” for carcinogenic activity under the specific conditions of the study.
Levels of Evidence (LOE) of 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**
• Toxicology and Carcinogenicity Studies in B6C3F1/N Mice Exposed to Whole-Body Radio Frequency Radiation at a Frequency (1,900 MHz) and Modulations (GSM and CDMA) Used by Cell Phones

• Toxicology and Carcinogenicity Studies in Hsd:Sprague Dawley SD Rats Exposed to Whole-Body Radio Frequency Radiation at a Frequency (900 MHz) and Modulations (GSM and CDMA) Used by Cell Phones
• 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 the NTP’s conclusions regarding the carcinogenic activity and toxicity of the test agent