# Actions on the Draft NTP Technical Reports Peer Review on July 31, 2019

The NTP convened the NTP Technical Reports Peer Review Panel ("the Panel") on July 31, 2019, to peer review draft NTP Technical Reports on prenatal developmental toxicity studies of (1) tris(chloropropyl) phosphate, (2) 4-methylcyclohexanemethanol, (3) vinpocetine, and (4) dimethylaminoethanol bitartrate. Information for the meeting, including the draft reports, are available at the NTP website (https://ntp.niehs.nih.gov/events/past/index.html). Summary minutes will be prepared and posted to the NTP website when completed. The Panel peer reviewed each report and provided its opinion on the draft NTP conclusion regarding the level of evidence for developmental toxicity of each substance tested. The Panel's recommendations do not necessarily represent the opinion of NTP. NTP will consider the input from the Panel in finalizing the technical reports. When completed, the technical reports will be published on the NTP website (https://ntp.niehs.nih.gov/results/pubs/index.html).

**Technical Report DART-01: Draft NTP Technical Report on the Prenatal Developmental Toxicity Studies of Tris(chloropropyl) Phosphate in Sprague Dawley (Hsd:Sprague Dawley SD) Rats**

The Panel voted to accept unanimously (5 yes, 0 no, 0 abstentions) the conclusions as written.

Hsd:Sprague Dawley SD rats, exposed to 162.5, 325, or 650 mg/kg TCPP

- **No evidence of prenatal developmental toxicity** in the absence of overt maternal toxicity**.**

**Technical Report DART-02: Draft NTP Technical Report on the Prenatal Developmental Toxicity Studies of 4-Methylcyclohexanemethanol in Sprague Dawley (Hsd:Sprague Dawley SD) Rats**

The Panel voted to accept (4 yes, 1 no, 0 abstentions) the conclusions as written. The panelist who voted "no" recommended removing adrenal malformations as support for *clear evidence*.

Hsd:Sprague Dawley SD rats, exposed to MCMH

- **Clear evidence of prenatal developmental toxicity**
  - Reduced fetal weight
  - Adrenal malformations
  - Increased malformations of the axial skeleton (short cervical supernumerary ribs (SNR), full thoracolumbar SNR, and costal cartilage not fused to the sternum)

These findings occurred in fetuses of dams administered 400 mg/kg and in the absence of overt maternal toxicity.

**Technical Report DART-03: Draft NTP Technical Report on the Prenatal Developmental Toxicity Studies of Vinpocetine in Sprague Dawley (Hsd:Sprague Dawley SD) Rats and New Zealand White (Hra:NZW SPF) Rabbits**

The Panel voted to accept unanimously (5 yes, 0 no, 0 abstentions) the conclusions as written.

Hsd:Sprague Dawley SD rats exposed to vinpocetine

- **Clear evidence of prenatal developmental toxicity**
  - Increased post-implantation loss
  - Increased incidences of ventricular septum defects, thoracolumbar ribs (full), and incomplete ossification of the thoracic centrum

These findings occurred in the absence of overt maternal toxicity.

**Technical Report DART-04: Draft NTP Technical Report on the Prenatal Developmental Toxicity Studies of Dimethylaminoethanol Bitartrate in Sprague Dawley (Hsd:Sprague Dawley SD) Rats**

The Panel voted to accept unanimously (5 yes, 0 no, 0 abstentions) the overall conclusions with the following marked changes.

Hsd:Sprague Dawley SD rats, exposed to DMAE

- **Equivocal evidence of prenatal developmental toxicity**
  - Increased incidences of short thoracolumbar ribs
  - Increased incidences of supernumerary sites in the skull
  - Increased incidences of absent innominate artery

These effects occurred in the absence of overt maternal toxicity.