Comments on IRIS Assessment Plan (EPA/635R-21/077) — Inhalation Exposure to Vanadium and Compounds

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Comments: Scoping and Problem Formulation

- Access to studies (1249) tagged as potentially relevant supplemental material to help identify any missing references.
- Key Science Issue #3: Synthesize current understanding on the human relevance of B6C3F1 mouse lung tumors to interpret findings on V2O5.
- Key Science Issue #4: Identify IPCS MoA/HRF analysis as a specific aim to link to this scientific issue.
- Consider in vivo mutagenicity studies under PECO criteria, rather than as supplemental material,
 - scientific consensus supporting mutagenicity as a toxicologically relevant endpoint for regulatory decision making (Heflich et al., Environ Mol Mutagen., 2020, 61: 34-41).

Comments on IRIS Assessment Plan for Inhalation Exposure to Vanadium and Compounds (Scoping and Problem Formulation Materials) issued May 28, 2021

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Comments

- HERO database missing key references,
 - Boice et al., 2007; Duffus, 2007; Fourie, 2010; Stoner et al., 1976.
- Important studies classified as not meeting PECO criteria,
 - Manjanatha et al., 2015; Banda et al., 2015; Black et al., 2015.
- Use of secondary sources leading to inaccurate statements on vanadium chemistry.
- Include human relevance of mouse lung tumors as an additional scientific issue.
- Convene a workshop on vanadium chemistry to inform IRIS assessment and to identify data gaps.