

## Minority opinion regarding the classification of silver for germ cell mutagenicity

Nathalie Printemps, 15.09.2022

This minority position concerns the absence of classification of silver for germ cell mutagenicity. From *in vitro* studies available mainly with AgNPs, there are concerns for DNA damages, clastogenicity and gene mutation. *In vivo*, clear concern was identified based on three positive chromosomal aberration assays. Although the majority of the *in vivo* micronucleus assays were negatives, some deficiencies were noted such as in Boudreaux et al. (2016). In addition, the concern on gene mutation identified *in vitro* was not appropriately follow-up *in vivo*. The positive results obtained in some *in vivo* comet assays, supports a concern for gene mutation. The hypothesis that these positive *in vivo* results could be related to oxidative stress is plausible but was not demonstrated *in vivo*. Overall, as no reliable assays on germ cells was available, category 1B is not considered appropriate. However, based on positive *in vitro* assays, supported by positive *in vivo* comet and chromosomal aberration assays, classification of silver in category 2 should be considered.