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DRAFT

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COMMITTEE ON CARCINOGENICITY OF CHEMICALS IN FOOD CONSUMER PRODUCTS AND THE ENVIRONMENT

HUMAN RELEVANCE FRAMEWORK: SUGGESTIONS FOR ADDITIONAL WORK.

1. The COC considered the IPCS Mode of Action (MOA) and the ILSI Human Relevance Framework (HRF) during the 2004 horizon scanning exercise and at its April 2005 meeting. Members noted that the HRF approach extended the MOA approach by considering whether the key events in the MOA are plausible in humans, taking into account kinetic and dynamic factors. One particular value of the HRF approach was that data were presented in a structured format which allowed data gaps to be readily identified. It was hoped that completion of the case studies would provide generic evaluations, limiting the need for duplication of effort.
2. The secretariat discussed a number of ideas with Professor Boobis following the April meeting. These focused on target organ concordance between rodents and humans and the possibility of using the IARC listing of group 1 and 2A carcinogens to identify priority compounds for review. (It is acknowledged that the vast majority of chemicals in these IARC groups are genotoxic carcinogens). A number of further questions were considered.
 - i) Are there MOAs for chemically induced rodent tumours in IARC group 1 or 2A which have not been sufficiently evaluated to make a decision on relevance yet the epidemiology is pointing towards human relevance, i.e. priority for evaluation. (There at present very few evaluations in the public domain using the MOA/HRF systems.).
 - ii) Are there chemically induced rodent tumours with MOAs considered relevant to humans but no evidence of human tumours. (This concerns the applicability of MOA evaluations?)
 - iii) Are there chemically induced human tumours (in IARC group 1 and 2A) for which there is evidence of precursor effects in rodents, but no rodent tumours, i.e. data other than tumours in rodents predicts human outcome? (e.g. arsenic was identified as one potential compound for consideration).
3. It was agreed that some future evaluation work particularly in respect of suggestion 2 (iii) could be undertaken. This would also be consistent with previous evaluations undertaken by COC and also some research funded by DH to investigate potential precursor event in rodents for non-genotoxic carcinogens.
4. What are members views on these suggestions?

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