

COMMITTEE ON MUTAGENICITY OF CHEMICALS IN FOOD, CONSUMER PRODUCTS AND THE ENVIRONMENT (COM)

HORIZON SCANNING PAPER 2010

Introduction

1. Members will be aware that a horizon scanning exercise is undertaken every year by the Committee, during which the Secretariat identifies new and emerging topics in the field of genotoxicity which may potentially require review. The horizon scanning exercise provides an opportunity for Members and advisers from Government Departments/ Regulatory agencies to discuss and suggest topics for further work. This year, as much of the Committee's work has revolved around re-drafting the guidance and many of last years topics have not been reviewed, it was decided that a further literature search this year was not necessary. Therefore the current paper reviews progress made on last years topics and readdresses the reviews not yet undertaken.

Progress on topics raised during the 2009 horizon scanning exercise.

2. A large amount of Committee time has been spent evaluating genotoxicity testing strategies and the generation of Guidance statements which will form part of the new revised COM Guidance. These topics have included:

- Does the Mouse Lymphoma Assay detect aneugens?
- Which mammalian cell tests best complements the Ames test in terms of detecting rodent carcinogens and *in vivo* genotoxins?
- An evaluation of the GADD45a-GFP 'GreenScreen HC' Genotoxicity Assay

In addition, Members agreed on a format of separating the Guidance into individual statements and the review process for these and a Guidance statement on thresholds for *in vivo* mutagens was issued.

Progress was made on consideration of the validation of the mutation assay using the PIG-A gene.

Topics not addressed during 2010

3. Members agreed that reviews of the mutagenicity of nanomaterials and of mutational spectra in the investigation of chemical induced mutagenesis would be important and these topics were not covered this year. Subsequent to the horizon scanning, it was suggested that a review of expanded simple tandem repeat (ESTR) mutation induction would be of interest - this has been initiated but not completed. Other topics considered in the 2009 exercise were the role of epigenetics in mutagenesis, mitochondrial mutagenesis and exposure to mutagens via the soil.

Questions for Members:

4. Members are informed that some limited funding (maximum of £50,000) is potentially available for the HPA to undertake selected research projects. Members are invited to propose ideas for such projects which are relevant to the COM.

5. Members are asked to prioritise the outstanding topics, as described above, and to suggest further items they may consider appropriate for review by the Committee.

**Secretariat/HPA Toxicology Unit
September 2010**