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

COM STATEMENT:

Quantitative approaches to the assessment of genotoxicity data - FIRST DRAFT

At COM meetings in October 2016 and March 2017 Members considered papers on recent developments in Quantitative approaches to the assessment of genotoxicity data. This included overviews of reports from the International Workshops on Genotoxicity Testing (IWGT) working group in quantitative approaches to genetic toxicology risk assessment (the QWG), publications arising from a workshop organised by the Health and Environmental Sciences Institute (HESI) and those in a recent edition of Mutagenesis on the topic. Aspects such as the development of different benchmark dose software (PROAST and BMDS), point of departure metrics and application in carcinogenicity risk assessment were considered.

Members agreed that it would be useful to present their views and opinions in a statement. Attached it the first draft of this statement for Members perusal and comment.

It is understood that, despite the publications and conviction from groups such as IWGT, the development of quantitative approaches in genetic toxicology is still very much 'work in progress'. Whilst its potential utility and value are broadly recognised, there are many who believe it requires a more rigorous critique and that careful consideration is given to its development and to communication to potential users. It is proposed that the current review and COM statement could contribute to the ongoing debate. Accordingly, Members are invited to reconsider the papers on the topic, and communicate their thoughts on the development and potential utility of the approaches and whether COM can provide constructive input.

It is acknowledged that this first draft may not reflect everyone's views, but it is hoped it will provide a good starting point. We are aware that these are complex topics, and that not everyone has a full understanding of the mathematical models. Parts in italics may need particular consideration and clarification.

Questions for Committee:

General

- Has the statement broadly captured the topic and Members views? Are there any omissions?

- What are Members opinions of the overall structure of the statement?
- Are the sections representative and do they present the right level of detail?
- Are there aspects that are presented which Members feel we have not covered in sufficient detail to pass comment?

Specific: (italicised sections)

- Para 6 – list of questions – is this the best way to present our discussions? Are there other aspects that require specific attention?
- Para 7 and 9 – level of detail – too much?
- Para 14 – discussion about 'degree of uncertainty / variability in the data – quantified?
- Para 15 = preliminary comments here or wait until a general conclusion?
- Para 18 and 19 – level of detail – clarification?
- Para 21 and 22 – clarification on thoughts about the use of BMD05 and opinions of which BMD metric generally
- Para 24 – 27 - how much detail is needed of the endpoints/ tissues data?
- Para 30 – use of covariates
- Para 32 and 37 – Members are invited to comment
- Para 41 – sufficient detail?
- Overall discussion and conclusion. – suggestions welcomed on structure, conclusions , recommendations?

Secretariat/ PHE Toxicology Unit

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