

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

Minutes of the meeting held at 2.00pm on Tuesday 24th November 2020 by Teams.

Present

Chair: Professor D Harrison

Members:

- Mr D Bodey
- Dr G Clare
- Dr M Cush
- Dr R Dempsey
- Dr J Doe
- Dr R Haworth
- Dr D Lovell
- Prof N Pearce
- Dr L Rushton
- Dr L Stanley

Secretariat:

- Miss B Gadeberg PHE Scientific Secretary
- Dr D Gott FSA
- Ms C Mulholland FSA

Assessors:

- Ms J Berrie HSE by teleconference
- Mr N O'Brien VMD
- Dr O Sepai PHE

Invited Experts and Contractors:

- Dr R Bevan IEH Consulting
- Dr P Rumsby IEH Consulting

Observers:

- Professor L Levy IEH Consulting
- Ms G Hilton PETA International Science Consortium

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ITEM 1: Announcements and apologies for absence

1. The Chair welcomed Members, and other attendees to the meeting. Apologies were received from Members: Dr R Kemp, Prof H Wallace; Assessors and Officials: Prof J O'Brien (FSA Science Council), Dr H McGarry (HSE) who was represented by Ms J Berrie, Dr J McElhiney (FSS), Dr H Stemplewski (MHRA), Mr I Martin (EA), and Ms G Hale (DHSC), and Observer Ms E McIvor (PETA International Science Consortium).

2. IEH Consulting Ltd had been awarded the PHE Secretariat support contract through open tender. Dr Ruth Bevan and Dr Sarah Bull will lead on the work from a scientific perspective, and Dr Bevan was present at the meeting.

3. Members were reminded to declare any interests they may have in an item before its discussion.

ITEM 2: Minutes of meeting held on 16th July 2020 (CC/MIN/2020/02)

4. A number of suggested amendments were proposed in the draft minutes, which were agreed.

ITEM 3: Matters arising

Item 3 Matters Arising – Scoping paper on the synthesis and integration of epidemiological and toxicological evidence in risk assessments

5. The subgroup on synthesis and integration of epidemiological and toxicological evidence in risk assessments had met by teleconference on 21st September and 16th November 2020.

Item 3 Matters Arising – Guidance statement G01 – A strategy for risk assessment of carcinogenicity

6. This document had been finalised by Chairs action and was awaiting publication on the COC website.

Item 3 Matters Arising – Guidance statement G08 – Risk assessment of the effect of combined exposures to multiple chemicals on carcinogenicity

7. The document had been finalised by Chairs action and was awaiting publication on the COC website.

Item 4 Draft position paper: The Tumour Microenvironment

8. Amendments to this document had been circulated for comment by correspondence. Members who commented were thanked and the final amendments would be undertaken before the document would be finalised by Chair's action.

Item 7 Cancer Risk Characterisation Methods G06 Update

9. Amendments to this document had been circulated for comment by correspondence. Members who commented were thanked and the final amendments would be undertaken before the document would be finalised by Chair's action.

Item 9 Guidance Statement G05: Carcinogenic dose response: defining points of departure and potency estimates - Third draft revision

10. The document had been finalised by Chairs action and was awaiting publication on the COC website.

ITEM 4: Scope of New Guidance Statement – Weight of evidence approach to assessing modification of cancer risk (CC/2020/12)

11. No interests were declared for this item.

12. The Committee has been considering a new approach to the assessment of potential chemical carcinogens using a framework based on an increasing understanding of the carcinogenic process and the development of cancer. It is hoped that such a framework would incorporate emerging evidence regarding the influence of different physiological and biochemical processes, on a dynamic carcinogenic process.

13. In a rolling review of the current COC guidance statement series, the Committee agreed that two of the documents – Hazard Identification and Characterisation (G03) and Alternatives to the 2-year bioassay (G07) should be combined into a new guidance document on a weight of evidence approach for assessment of chemicals reflecting the considerations of a dynamic carcinogenic process. A scoping document outlining a proposed approach to this had been reviewed by Members by correspondence prior to the meeting and the comments received were incorporated in the presented paper.

14. The Committee agreed that the flow chart detailing stages of cancer development based on mutation and cell proliferation reflected where current regulatory tests were available. It was considered a good basis on which the potential effects of other events such as immune responses, hormonal effects and angiogenesis on the carcinogenic process could also be considered. It was suggested that presentations on the subject of cancer development modelling over time would be helpful to assist members in considering this work, this could include a review of mathematical modelling on adverse outcome pathways and quantitative adverse outcome pathways, .

15. A number of additions to the document were suggested, including the key consideration of how such an approach would allow quantitation of risk for individual chemicals/exposures. It was agreed that the next stage should be expansion of the points currently included in the scoping document, with the additional areas suggested also added, for discussion at the March 2021 COC meeting.

16. Moving forward to consider quantification in the future, it was suggested that presentations on the subject of cancer development modelling over time would be helpful to assist members in considering this work, this could include a review of mathematical modelling on adverse outcome pathways and quantitative adverse outcome pathways, consideration of exposure assessment and exposure modelling, and consideration of rates of change in incidence over the course of a lifetime in humans.

111 **ITEM 5: Horizon Scanning (CC/2020/13)**

112 17. No interests were declared for this item.

113 18. This paper presented the formal annual horizon scan, with the list of topics
114 from the 2019 Horizon Scan, an update on the work of IARC and the EU Scientific
115 Committees, and an overview on the balance of expertise of the Committee.

116 19. As discussed under Item 4, mathematical modelling of multi-stage process
117 was of interest and it was agreed this would be taken forward with the development
118 of weight of evidence approach and the follow up from that.

119 20. The topic of shift work was still considered relevant, as were other lifestyle
120 factors such as stress which affect cancer susceptibility. It was agreed that a
121 watching brief on risk modifiers should be maintained.

122 21. The COC consideration of nanomaterials had not been updated for some
123 time, and it was agreed that this might be best taken forward across the COC, COM
124 and COT.

125 22. It was suggested that it would be helpful to have a presentation on anti-biotics
126 and anti-virals with respect to how they are assessed in the context of their effect on
127 the microbiome. This linked to the presentation and discussion on the microbiome
128 and the possibility of the influence of the microbiome on cancer risk given at the
129 March 2020 meeting and would fit in with the watching brief on risk modifiers.

130 23. Following the discussion at the earlier joint meeting with the COM, it was
131 queried whether there were any areas that COC may previously not have focussed
132 on which might gain importance, following EU Exit and the end of the transition
133 period. While some specific requests might be put forward, the core remit of the
134 Committee was likely to remain unchanged.

135 24. The paper (CC/MUT/2020/01) presented at the joint COC/COM meeting had
136 been helpful, and it was queried whether there was any new thinking on the COM
137 statement on thresholds for in vivo mutagens. A joint discussion of the topic with
138 COM was suggested.

139 25. To summarise the priority topics agreed were:

- 140 • Maintain a watching brief on factors affecting cancer susceptibility
141 including shift work, stress and other lifestyle factors and how that might
142 affect assessment of chemicals and carcinogenicity
- 143 • Consider an update to guidance on assessment of nanomaterials, possibly
144 as a joint activity across COC, COM and COT
- 145 • Gain awareness of the potential effects of antibiotics and antivirals on the
146 microbiome

- 147 • Consider a joint discussion with COM on thresholds for in vivo mutagens
148 and whether there is new information subsequent to the 2010 COM
149 opinion

150 26. In terms of balance of expertise, it was noted that it would be beneficial to
151 consider a gap analysis, in preparation for looking for new expertise to come onto
152 the Committee. It was noted that it could take time to get people engaged with
153 Committee work, so Members were encouraged to bring the work of the COC to the
154 attention of colleagues and partners.

155 **ITEM 6: Any other business**

156 27. No other business was raised.

157 **ITEM 7: Date of next meeting**

158 28. The next meeting would be held on 11th March 2021.

Draft