

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

Follow up to horizon scanning – March 2023

Introduction

1. This paper presents the standing follow up to the last full horizon scanning held in November 2021 outlining the topics identified during that discussion and an update on topics being considered by IARC and the EU Scientific Committees.

Future approach to horizon scanning

2. The Committee undertakes regular Horizon Scanning exercise, in line with the Code of Practice for Scientific Advisory Committees, in which the Secretariat and/or Members have suggested areas/topics that may need consideration in the light of new and emerging evidence relating to cancer risk assessment.

3. To support future horizon scanning activity, a presentation will be given at the March 2023 COC meeting, outlining possible approaches to adopt and for Members to consider the types of searches that are undertaken by the Secretariat for this activity.

Topics from COC horizon scanning 2021

4. Below are the topics already on the list and discussed at the horizon scan in November 2021:

- Maintain a watching brief on factors affecting cancer susceptibility including shift work, stress and other lifestyle factors and how that might affect assessment of chemicals and carcinogenicity
 - This was discussed at the joint COC-COM meeting on 2nd March 2022
- Consider an update to guidance on assessment of nanomaterials, possibly as a joint activity across COC, COM and COT
 - Recent COM guidance on nanomaterials was provided for information at the joint COC-COM meeting on 2nd March 2022

This is a background paper for discussion.
It does not reflect the views of the Committee and should not be cited.

- Gain awareness of the potential effects of antibiotics and antivirals on the microbiome
- Consider a joint discussion with COM on thresholds for in vivo mutagens and whether there is new information subsequent to the 2010 COM opinion
- Endocrine disruption and the link with carcinogenicity, acknowledging that endocrine disruption is also a COT remit
- Impact of chemicals on potential for metastasis or progression of cancer, in particular with respect to the Hallmarks of Cancer and linking to the tumour microenvironment topic
- Communication of cancer risk and how COC should be involved with this, especially with the move away from a yes/no decision on whether a substance is a carcinogen, and ensuring consistency in describing risks, possibly starting with a landscape review of terminology across a number of Committees (FSA and UKHSA) and led by Lay Members
- Ensuring appropriate considerations are made to acknowledging diversity in the population especially where there might be differences in risk between different groups

Joint horizon scanning topics

5. On 24th -25th November 2020, the COC and COM held a joint meeting to which COT members were also invited, and one of the discussion items was joint horizon scanning. From this discussion, the following topics were agreed and the Secretariats will consider how to progress these either as joint topics or which Committee might lead on these:

- Use of toxicogenomics/omics technologies in toxicity testing
- PBPK modelling – a COT workshop was held in December 2020.
- Next generation sequencing
- Further exploration of microplastics/microparticles and their composition – also linking with COMEAP
- Development of a dynamic cancer risk model, including consideration that pre-cancer effects are assessed as 'general' toxicity pathways, and other influencers on cancer/toxicity risk (e.g. shift work)
- Knowledge sharing across the three Committees, including impacts of EU Exit
- Consideration of uncertainty, use of uncertainty factors and margins of exposure – noting this also links with other activities.

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6. On 2nd March 2022, the COC and COM held a joint meeting to which COT members were also invited. From the discussions during this meeting, the following topics have been identified and the Secretariats will consider how to progress these either as joint topics or which Committee might lead on these:

- Guidance on exposure assessment
- Progression of cancer risk modification work, including quantification

COM and COT horizon scanning topics

7. The Committee has previously requested sight of the COM and COT horizon scanning activities.

8. The COM last undertook horizon scanning in October 2022, and the discussion paper is attached at Annex A. The topics of interest highlighted included:

- iPS organoids as model systems (COM and COC);
- the use of genomics in toxicity testing strategies; and
- whether epigenetics should/can be incorporated into standard toxicity testing.

9. The COT last undertook horizon scanning in February 2023, and the discussion paper is attached at Annex B.

Work following EU Exit and Transition

10. The Committee has asked to be kept up to date on relevant activities following EU Exit and the end of the transition period.

11. The Environmental Improvement Plan (EIP) 2023 for England (<https://www.gov.uk/government/publications/environmental-improvement-plan>) , was published on 31st January 2023, and is the first revision of the 25 Year Environment Plan (25YEP). It builds on the 25YEP vision with a new plan setting out how Defra will work with landowners, communities and businesses to deliver governments goals for improving the environment, matched with interim targets to measure progress. The aim of taking these actions is to help Defra restore nature, reduce environmental pollution, and increase the prosperity of our country.

12. The EIP makes a commitment to publishing the UK Chemicals Strategy (the vision for chemicals up until 2040) this year.

Update on activities of UK Scientific Committees and Groups

13. An update on FSA Scientific Advisory Committees is provided to COT at each meeting, the latest copy is attached in Annex C.

Upcoming IARC meetings

14. IARC have three upcoming meetings on their website with respect to the Monograph series (<https://monographs.iarc.who.int/iarc-monographs-meetings/>):

- Meeting 134 (6-13 June 2023) is on:
 - Aspartame (CAS No. 22839-47-0)
 - Methyleugenol (CAS No. 93-15-2)
 - Isoeugenol (CAS No. 97-54-1)
- Meeting 135 (7-14 November 2023) is on:
 - Perfluorooctanoic acid (PFOA; CAS No. 335-67-1)
 - Perfluorooctanesulfonic acid (PFOS; CAS No. 1763-23-1)

15. IARC also have an upcoming scientific workshop on “Key Characteristics-associated End-points for Evaluating Mechanistic Evidence of Carcinogenic Hazards” on 25-28 July 2023.

Upcoming EU Scientific Committee topics

16. The agenda and minutes of recent EU Scientific Committee on Consumer Safety (SCCS) meetings are presented in Annex D. SCCS has working groups on:

- Cosmetic Ingredients (last meeting 22-23/02/2023),
- Nanomaterials in Cosmetic Products (last meeting 27/02/2023), and
- Methodologies (last meeting 01/02/2023).

17. The agenda and minutes of recent EU Scientific Committee on Health, Environmental and Emerging Risks (SCHEER) meetings are presented in Annex E. SCHEER has working groups on:

- Protection of animals (last meeting 27/01/2023)
- Cobalt in toys (last meeting 21/11/2022),
- Electromagnetic fields (EMF) II (last meeting 24/11/2022),
- Electromagnetic fields (EMF) I (last meeting 28/02/2023),
- Draft Environmental Quality Standards for the Water Framework Directive Priority Substances & groundwater quality standards (last meeting 10/02/2023), and
- Titanium dioxide in toys (last meeting 07/12/2022).

18. The European Food Safety Authority has a substantial body of work across its Scientific Committee and Panels. More detail is available here:

<https://www.efsa.europa.eu/en/science/scientific-committee-and-panels>. EFSA currently has open consultations on a number of substances, and also on methodological questions. The full list of open consultations is here:

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<https://connect.efsa.europa.eu/RM/s/publicconsultation> and expected upcoming consultations are here:
https://connect.efsa.europa.eu/RM/s/publicconsultation?PublicConsultation2_c-filterId=00B1v000009eNnNEAU .

Questions for the Committee

19. Members are asked to consider the list of topics from 2021 and subsequently, and other aspects summarised and in particular:

- a. Are there any additional topics of interest or importance which the COC should consider for future horizon scanning?

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CC/2023/01 Annex A

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Latest COM horizon scan discussion paper (MUT/2022/12)

Available:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1110287/COM_Meeting_131022_Web.zip

This paper is attached. It is not being made publicly available for copyright reasons but can be accessed via the link provided.

**Secretariat
March 2023**

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Follow up to horizon scanning – March 2023

Latest COT horizon scan discussion paper (TOX/2023/09)

Available:

<https://cot.food.gov.uk/COT%20Meeting:%207th%20February%202023#tox-2023-09>

This paper is attached. It is not being made publicly available for copyright reasons but can be accessed via the link provided.

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Updates on activities of other Scientific Advisory Groups:
Other FSA Scientific Advisory Committees (TOX/2023/11)

Available:

<https://cot.food.gov.uk/Update%20on%20the%20work%20of%20other%20Scientific%20Advisory%20Committees-%20February%202023>

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Agenda and minutes of the Scientific Committee on Consumer Safety Plenary meetings 2022-2026 3rd meeting.

Available: https://health.ec.europa.eu/scientific-committees/scientific-committee-consumer-safety-sccs/sccs-plenary-sessions-2022-2026_en

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Agenda and minutes of the Scientific Committee on Health, Environmental and
Emerging Risks Plenary meetings 2022-2026 3rd and 4th meetings.

Available: https://health.ec.europa.eu/scientific-committees/scientific-committee-health-environmental-and-emerging-risks-scheer/scheer-plenary-meetings-2022-2026_en

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