MUT/MIN/2023/02

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

Minutes of the meeting held at 10.30 on 15th June 2023 via MS Teams.

Present:

Chairman:	Professor G Jenkins
Members:	Mr A Bhagwat
	Dr C Beevers
	Dr A Doherty (Co-opted member)
	Dr P Fowler
	Dr N Goldsmith (Associate member)
	Dr G Johnson
	Professor D Harrison (Ex officio)
	Ms J Kenny
	Dr A Povey
	Mr P Rawlinson
	Mrs M Wang
Secretariat:	Dr O Sepai (UKHSA Scientific Secretary)
	Mr S Robjohns (UKHSA Secretariat)
	Ms B Gadeberg (UKHSA Secretariat)
	Dr D Gott (FSA Secretariat)
	Ms C Tsoulli (FSA)
	Dr C Mulholland (FSA)
	Ms C Potter (FSA)
Secretariat Support:	Dr R Bevan (IEH Consulting)
	Dr S Bull (Tara Consulting)
Assessors:	Ms A Baker (VMD)
	Ms N Hough (HSE)
	Ms A Baker (VMD)
	Dr J Clements (MHRA)
	Ms H Alpren (DEFRA)

	Ms K Boss (FSS)
Observers:	Dr J Weeks (IEH Consulting)
	Paula Braun (PETA)

ITEM 1: WELCOME AND APOLOGIES FOR ABSENCE

1. The Chair welcomed the COM members, assessors and secretariat. The Chair also welcomed Dr Ruth Bevan from IEH Consulting providing support to the COM secretariat. Apologies for absence were received from the COM member Professor Shareen Doak and the assessors Ms F Fernandez (VMD) and Dr L Koshy (HSE).

ITEM 2: ANNOUNCEMENTS

2. Members were requested to declare any interests before the discussion of any items.

3. The Chair informed the COM that the members Julie Kenny and George Johnson and Madeleine Wang had come to the end of their initial 3-year term and that all three had their term as a COM member rolled over into a second term. The advert for the two vacant members positions had gone live.

4. The COM had already recruited Nathan Goldsmith as an associate member and was looking to recruit another associate member. Members were requested to use their networks to inform people who were interested to look out for this opportunity when the advert comes out.

ITEM 3: MINUTES OF THE MEETING HELD ON 23rd February 2023 (MUT/MIN/2022/03)

5. The minutes of the COM meeting held on the 23rd of February 2023 were agreed subject to minor typographical amendments.

ITEM 4: MATTERS ARISING

6. The Food standards Agency (FSA) provided an update on the progress of the COM sub-group on the evaluation of the genotoxicity of titanium oxide. The COM sub-group had read through the identified papers and sifted through using the previously agreed criteria and scoring system. The papers were sifted based on quality with the aid of a colour coded system of red, amber and green, with studies flawed in a major way coded as red. The good quality studies would be prioritised, and an initial draft review would be produced based on these. It was noted that there were far fewer *in vivo* studies than *in vitro* studies. IEH secretariat support informed the COM that the review process had initially started with approximately 270 papers from the EFSA report with some of these being duplicates. Following the first round of sifting, approximately 62 papers remained. Following a second round of screening, which considered aspects such as methodology, agglomeration, and identification of the test substance, approximately 34 studies remained. Following more in-depth consideration, approximately 17 were considered to be unsuitable, 8 amber and only 9 as acceptable. The COM sub-group would draft an evaluation based on the

remaining acceptable papers and intended to produce this report for the COM October 2023 meeting.

ITEM 5: DRAFT NON-EXPERT SUMMARIES FOR COM STATEMENTS (MUT/2023/05)

7. No interests were declared for this item.

8. At the COM meeting in June 2022, it was agreed that the public could benefit from the addition of non-expert summaries placed at the start of each COM guidance statement (GS). Paper MUT/2023/05 discussed a third draft non-expert summary for the overarching COM GS entitled 'Guidance on a strategy for genotoxicity testing of chemicals'. This paper had previously been amended following comments from Members when presented at the meeting in October 2022 (MUT/2022/13) and February 2023 (MUT/2022/03) and by a lay member of COM following the meeting in February 2023.

9. Members discussed the importance of layering information when communicating with the public, which would enable readers to access the content of the COM publications at their individual level of understanding/education. The amended non-expert summary for the overarching COM guidance statement was considered to be appropriate in style for a mid-level introductory document, aimed at individuals achieving an A level (or equivalent) standard of education. However, it was also considered that an entrance level summary would need to be written, which should be aimed at GCSE level of education; this would be best placed on the UKHSA public facing website when it had been developed.

10. Members suggested a number of amendments to the draft paper for clarification purposes. It was considered that once the format and style of the non-expert summary was agreed for the over-arching guidance statement, this could then be applied to the remaining COM guidance statement series. Members agreed that draft paper should be amended according to discussions and sent to the committee for any further comments via email

ITEM 6: WHAT IS ON THE HORIZON – PRESENTATION BY JASON WEEKS FROM IEH (MUT/2023/02)

11. A presentation on the utility, benefits and methodologies for developing a horizon scanning activity using a structured and focussed approach was shared with committee members. The suggested methodology provided a framework using a STEEPLE (Social, Technological, Economic, Environmental, Political, Legal and Ethical) approach to address key drivers impacting future outcomes. For example, by the incorporation of societal aspects and ethics in developing insights based on public attitudes and perceptions that may influence future committee decision making. A systematic and structured evaluation of current information to identify emerging threats and risk was suggested as a method that would allow for better preparedness and ability to introduce mitigation approaches. A successful horizon scanning approach should be continuous and allow searching for information that was not known. There would be a requirement to prioritise and filter information and

thought would be required on how to communicate the results. It was agreed by COM that further discussion would take place to define the activities to be taken forward probably as a collective Committee task with the sister committees on toxicity (COT) and carcinogenicity (COC) rather than specific activity for COM. This could be more efficient in terms of transfer of knowledge across the committees.

ITEM 7: NC3RS/UNILEVER WORKSHOP "OPPORTUNITES FOR THE UK TO DEVELOP WORLD-LEADING CHEMICALS REGULATION" – SUMMARY PRESENTATION BY NATALIE BURDEN (NC3RS)

12. Dr Natalie Burden presented a summary of a workshop on the 11th of May 2023 held jointly by the NC3Rs and Unilever to discuss opportunities the UK may have, due to EU-exit, to develop world-leading chemicals regulation that could help reduce the reliance on animal testing. The aim of the workshop was to establish a consensus 5-year vision from the UK science base for a future UK chemicals policy, and attendees included representatives of industry, government, contract research organisations, trade associations and academia.

13. A draft 5-year vision had been prepared by the NC3Rs in conjunction with a steering group which formed the basis of the workshop discussions. Key features of the draft vision were that it covered a short time period, was science-led, embraced current scientific developments, beneficial to the UK economy, in line with sustainability goals and maximised opportunities to apply the 3Rs whilst ensuing maximum protection of human health and the environment. This vision also intended to complement the science and technology framework document published by the current government, which outlined UK plans to become a science and technology superpower by 2030.

14. A tiered approach was proposed that utilises multiple lines of evidence, including existing information and those from evolving methodologies such as NAMs, which are integrated to help build confidence in using non-traditional approaches to risk assessment. The approach has a degree of flexibility to exploit advances in technologies and can be adjusted for sector specific differences. Attendees were in general agreement of the drafted approach and supported a move away from the current hazard identification approach for risk assessment. Attendees also ideally wanted a harmonised approach with mutual recognition avoiding different testing requirements in different parts of the world. However, it was recognised that this is not a small undertaking and dedicated funding and capability would be needed to help lead these cutting-edge approaches and innovation within the current approaches.

15. To realise the 5-year vision, attendees considered that a clear definition of the benefit propositions was needed to improve scientific rationale towards safety assessment, whilst retaining public confidence and protection. In addition, it was seen that there is a need for accountability and a political will to own and direct this vision and that there is currently an opportunity for different regulatory departments to be more collaborative. It was proposed that a UK centre of excellence could be established, as has been done in other countries,

which would act as a link between method developers and the regulators. The next steps from the NC3Rs and subgroup committee was to prepare a workshop report and to draft a policy paper, based on the main discussion points and recommended actions, to be presented to a government department.

16. The Chair thanked the speaker for the presentation and summary and commented that it was very useful for COM to have an early overview of the workshop discussions. It was suggested that the draft policy document should also be seen by COM at future meetings. During discussions, COM members considered that a proof of concept and a coordinated approach was needed for the proposed approach, as currently there are a number of different initiatives underway by different organisations both in the UK and globally. Ownership of the 5-year vision would help focus this for the UK and there was a need to ensure that any message was getting to the correct people. Members considered that there was now an opportunity for the UK to influence and bring onboard scientifically justified changes to regulatory approaches.

ITEM 8: QSARS – THE WAY FORWARD – PAUL FOWLER (COM)

17 One member Paul Fowler had been asked to lead a COM sub-group on QSARS a gave a presentation. It was noted that QSAR data would only improve and likely very quickly. For example, clastogenicity was better predicted that it had been previously. There was a request for members to volunteer to participate in the planned QSAR sub-group. It was suggested that the COM would consider QSARS with a focus on pragmatic guidance on how to use QSARS for the evaluation of the mutagenicity of impurities. There would also be an update produced on the predictivity of QSARS for all mutagenic endpoints, for example, to assess whether all the mutagenic endpoints were adequately covered. The updated COM guidance would also be aligned with existing guidance. It was intended that recent literature would be considered and that a draft document would be produced in 2024.

ITEM 9: DRAFT COM ANNUAL REPORT 2022

18. A draft COM annual report had been produced that summarised the topics and areas of work considered by the COM through 2022. Members were requested to provide any comments on this draft document to the secretariat.

ITEM 10: OECD UPDATES

19. Members were informed that the OECD test guideline on the *in vitro* micronucleus test was in the process of being updated in relation to the wording and guidance on cytotoxicity. The COM was also informed that there would be an OECD review of the Toxtracker assay and interested members were encouraged to sign up to the peer review process. Additionally, it was noted that there was likely to be a wider review of historical control data in terms of how it is collected and maintained. It was also noted that the OECD would likely undertake a review of genotoxicity historical control data. This could potentially be extended to a review of historical control data in general at a later date.

20. The International workshop on Genotoxicity Testing (IWGT) had agreed that the *in vivo* liver micronucleus test was sufficiently robust to warrant the development of an OECD Test Guideline. Members were also informed that at a Health and Environmental Sciences Institute (HESI) meeting there was some discussion over how best to develop OECD Guidelines on the use of error corrected duplex sequencing.

ITEM 11: AOB

21. Members were asked to check that their declaration of interests were up to date.

ITEM 12: DATE OF NEXT MEETING

22. Date of the next meeting 12th October 2023.