



SCIENTIFIC COMMITTEE

MINUTES OF THE 42nd MEETING OF THE WORKING GROUP ON GENOTOXICITY

Tele-conference, 7 March 2022

(Agreed on 17 March 2022)

Participants

- Working Group Members:

Diane Benford (Chair), Gabriele Aquilina, Margherita Bignami, Claudia Bolognesi, Maria Dusinska, Rainer Gürtler, Francesca Marcon, Elsa Nielsen, Josef Schlatter and Christiane Vleminckx

- EFSA:

Methodology and Scientific Support (MESE) Unit: Maria Chiara Astuto, Daniela Maurici¹ and Alexis Nathanail

Food Ingredients & Packaging (FIP) Unit: Maria Carfì, Federica Lodi², Carla Martino³

Nutrition and Food Innovation (NIF) Unit: Annamaria Rossi⁴

1. Welcome and apologies for absence

The Chair welcomed the participants. Apologies were received from the expert Riccardo Crebelli and the Scientific Committee observer Kyriaki Machera.

2. Adoption of agenda

The agenda was adopted without changes.

3. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence⁵ and the Decision of the Executive Director on Competing Interest Management⁶, EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues

1 Participated only for agenda item 5.3 and 6

2 Participated only for agenda item 5.2

3 Participated only for agenda item 5.1

4 Participated only for agenda item 5.1 and 5.2

5 http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf

6 http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf

discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

4. Agreement of the minutes of the 41st Working Group tele-meeting held on 3 February 2022, tele-conference.

The minutes of the 41st Working Group (WG) tele-meeting held on 3 February 2022 were agreed by written procedure on 15 February 2022⁷.

5. Scientific topics for discussion

5.1. Request for advice from the Food Ingredients & Packaging (FIP) Unit on an approach for assessing smoke flavourings

The WG on Genotoxicity was asked by the WG on Flavourings of the EFSA Panel on Food Additives and Flavourings (FAF) to provide advice regarding the approach for assessing genotoxicity studies of smoke flavourings, and specifically a new Smoke Flavouring primary product (Prosmoke BW 01) (EFSA-Q-2019-00441), in the context of the implementation of the Scientific Committee Guidances on genotoxicity assessment of mixtures (2019⁸) and aneugenicity (2021⁹). After being presented with some background information, the WG discussed the available evidence. The outcome of the discussion will be reported to the WG on Flavourings.

5.2. Internal document for assessing relevance and reliability of genotoxicity studies

To follow up the discussion held at the 41st WG Genotoxicity meeting, the WG discussed an internal Working Instruction (WIN), describing a harmonised approach for the assessment of relevance and reliability of genotoxicity studies. The document will be available for consultation by the different EFSA Units during the evaluation of genotoxicity studies and annexed to scientific outputs if appropriate. The scope is to ensure harmonisation between Units on the approach for the assessment of evidence on genotoxicity. The WG revised the document and agreed on a final version which will be circulated to relevant EFSA Panels and Units for information and feedback.

5.3. Discussion on the use of whole genome sequencing data for genotoxicity assessment

The WG was presented with a proposal regarding the organisation of a thematic discussion with external experts on the application of whole genome sequencing approaches in genotoxicity assessment.

6. Any Other Business

6.1. MoE Opinion Update

The WG was informed on the discussion held during the 106th Scientific Committee plenary meeting on the possible review of the EFSA Scientific Committee Opinion on the Margin of Exposure (MoE)

7 <https://www.efsa.europa.eu/sites/default/files/2021-09/genotoxicity20182021.pdf>

8 EFSA Scientific Committee, 2019. Statement on the genotoxicity assessment of chemical mixtures. EFSA Journal 2019;17(1):5519, 11 pp. <https://doi.org/10.2903/j.efsa.2019.5519>

9 EFSA Scientific Committee, 2021. Scientific Opinion on the guidance on aneugenicity assessment. EFSA Journal 2021;19(8):6770, 27 pp. <https://doi.org/10.2903/j.efsa.2021.6770>

approach¹⁰. The WG members discussed the links between this possible new mandate and the current activities of the WG Genotoxicity, as well as considered best ways forward for this task. Discussion about the prioritisation of this activity is scheduled for the next Scientific Committee plenary meeting and the WG will be informed of any updates.

6.2. IWG for Germ Cell Mutagenicity

The WG was informed that EFSA has been invited to join the Informal Working Group (IWG) on Germ Cell Mutagenicity. The IWG is coordinated by the EU Joint Research Center (JRC) to provide advice to the Formal Working Group for the revision of the Globally Harmonized System (GHS) classification criteria for Germ Cell Mutagenicity. The WG Genotoxicity was informed on the current activities and further developments will be communicated in the next meetings.

6.3. Botanicals Toxicity Identification - Genotoxicity QSAR data assessment

The WG was presented with the current activities of the WG on Botanicals regarding the assessment of QSAR data to evaluate the genotoxicity of substances relevant to edible botanical species. After being presented with the background information, the WG discussed the best strategy to evaluate QSAR data on genotoxicity. Further discussion on this topic will be held as soon as real case examples will become available.

6.4. Feedback meeting with DG SANTE on the *in vitro* genotoxicity testing strategy

The WG was updated with the outcome of a meeting held with DG SANTE on the harmonisation of *in vitro* genotoxicity testing strategy in line with the EU chemicals strategy for sustainability (one substance - one assessment strategy).

6.5. Confirmation of next meeting dates and workplan for 2022

The WG agreed on the workplan and next meeting dates.

7. Next meetings

The next meetings are scheduled for:

- 10 and 11 May 2022 (tele-meeting; the 2nd day only if strictly needed)
- 27 June 2022 (tele-meeting)
- 19 September 2022 (tele-meeting)
- 17 October 2022 (tele-meeting)
- 29 November 2022 (tele-meeting)
- 12 December 2022 (tele-meeting; only if strictly needed)

¹⁰ European Food Safety Authority, 2005. Opinion of the Scientific Committee on a request from EFSA related to A Harmonised Approach for Risk Assessment of Substances Which are both Genotoxic and Carcinogenic. EFSA Journal 2005; 3(10):282, 33 pp. doi:10.2903/j.efsa.2005.282



SCIENTIFIC COMMITTEE

MINUTES OF THE 41st MEETING OF THE WORKING GROUP ON GENOTOXICITY

Tele-conference, 3 February 2022

(Agreed on 15 February 2022)

Participants

- Working Group Members:

Diane Benford (Chair), Gabriele Aquilina, Margherita Bignami, Claudia Bolognesi, Tamara Coja¹, Riccardo Crebelli, Maria Dusinska, Rainer Gürtler, Francesca Marcon, Elsa Nielsen, Josef Schlatter and Christiane Vleminckx

- Observer:

Kyriaki Machera (Scientific Committee member)²

- EFSA:

Methodology and Scientific Support (MESE) Unit: Maria Chiara Astuto, Daniela Maurici¹ and Alexis Nathanail

Food Ingredients & Packaging (FIP) Unit: Maria Carfi³, Federica Lodi³ and Christina Kyrkou³

Pesticides Peer Review (PREV) Unit: Arianna Chiusolo¹ and Juan Parra Morte²

Nutrition and Food Innovation (NIF) Unit: Annamaria Rossi²

1. Welcome and apologies for absence

The Chair welcomed the participants.

2. Adoption of agenda

The agenda was adopted without changes.

1 Participated only for agenda item 5.1

2 Absent for agenda item 5.1

3 Participated only for agenda item 5.2

3. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence⁴ and the Decision of the Executive Director on Competing Interest Management⁵, EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

4. Agreement of the minutes of the 40th Working Group tele-meeting held on 12 November 2021, tele-conference.

The minutes of the 40th Working Group (WG) tele-meeting held on 12 November 2021 were agreed by written procedure on 26 November 2021⁶.

5. Scientific topics for discussion

5.1. Request for advice from the Pesticides Peer-Review (PREV) Unit on the genotoxic potential of PBA and PBA(OH) (EFSA-Q-2021-00118)⁷

The WG on Genotoxicity was asked to provide advice on the genotoxic potential of the common pyrethroid metabolites 3-phenoxybenzoic acid (PBA) and 3-(4'-hydroxyphenoxy)benzoic acid (PBA(OH)) (EFSA-Q-2021-00118), in the context of a European Commission mandate received by the Pesticides Peer Review (PREV) Unit. After receiving the advice from the WG on Genotoxicity in November 2021, the WG on Pyrethroids Common Metabolites was informed by the Rapporteur Member State of one active substance under re-evaluation (in the context of the EU peer review) for which additional data were available. The WG Genotoxicity discussed the additional data received and finalised the assessment as captured in an Appendix that will be submitted to the requesting Unit.

5.2. Request for advice from the Food Ingredients & Packaging (FIP) Unit on an approach for assessing genotoxicity studies on sweeteners

The WG on Genotoxicity was asked by the WG on the re-evaluation of sweeteners to provide advice regarding the approach for assessing genotoxicity studies on sweeteners. The outcome of this request was an updated Appendix, outlining the approach that will be attached to the Protocol on hazard identification and characterisation of sweeteners⁸. The WG provided their comments and finalised the Appendix that will be submitted to the requesting Unit. The WG discussed the possibility for the preparation of a more transversal document to better harmonise the approach for assessing the relevance and reliability of genotoxicity studies among the different Units. Further discussion on this topic will take place at the next WG meeting.

5.3. Discussion on the use of whole genome sequencing data for mutagenicity assessment

The WG was presented with an overview of the application of whole genome sequencing approaches for genotoxicity assessment. After a short discussion, the WG concluded that further information on these techniques and discussion would be needed to clarify how to use whole genome sequencing data in the context of genotoxicity assessments.

4 http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf

5 http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf

6 <https://www.efsa.europa.eu/sites/default/files/2021-09/genotoxicity20182021.pdf>

7 <https://open.efsa.europa.eu/questions/EFSA-Q-2021-00118>

8 <https://efsa.onlinelibrary.wiley.com/action/downloadSupplement?doi=10.2903%2Fsp.efsa.2020.EN-1803&file=efs31803e-sup-0001-annex.pdf>

6. Any Other Business

6.1. Update on ECHA guidance document revision of genotoxicity requirements in the context of REACH legislation

The expert Riccardo Crebelli updated the WG on the ongoing ECHA activities on the revision of the requirements for genotoxicity assessment under the REACH Regulation. Riccardo participated in the meeting between ECHA and Member States to report back on EFSA's guidance documents and approaches on genotoxicity assessment.

6.2. Feedback on ongoing OECD activities

The WG on Genotoxicity was presented with on-going OECD activities regarding the development and update of OECD Test Guidelines for assessment of genotoxicity.

6.3. Confirmation of next meeting dates and workplan for 2022

The WG agreed on the workplan and next meeting dates.

7. Next meetings

The next meetings are scheduled for:

- 7 March 2022 (tele-meeting)
- 2 May 2022 (tele-meeting)
- 30 May 2022 (tele-meeting; only if strictly needed)
- 27 June 2022 (tele-meeting)
- 19 September 2022 (tele-meeting)
- 17 October 2022 (tele-meeting)
- 29 November 2022 (tele-meeting)
- 12 December 2022 (tele-meeting; only if strictly needed)



SCIENTIFIC COMMITTEE

MINUTES OF THE 40th MEETING OF THE WORKING GROUP ON GENOTOXICITY

Tele-conference, 12 November 2021

(Agreed on 26 November 2021)

Participants

- Working Group Members:
Diane Benford (Chair), Gabriele Aquilina, Margherita Bignami, Claudia Bolognesi, Tamara Coja¹, Riccardo Crebelli, Maria Dusinska, Rainer Gürtler and Francesca Marcon
- EFSA:
SCER Unit: Maria Chiara Astuto, Daniela Maurici and Alexis Nathanail
NUTRI Unit: Annamaria Rossi²
PREV Unit: Arianna Chiusolo¹
- Observer:
Kyriaki Machera (Scientific Committee member)

1. Welcome and apologies for absence

Apologies were received by Christiane Vleminckx.

2. Adoption of agenda

The agenda was adopted without changes.

¹ Only for agenda item 5.1

² Only for agenda item 6

3. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence³ and the Decision of the Executive Director on Competing Interest Management⁴, EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

4. Agreement of the minutes of the 39th Working Group tele-meeting held on 6-7 October 2021, tele-conference.

The minutes of the 39th Working Group (WG) tele-meeting held on 6-7 October 2021 were agreed by written procedure on 20 October 2021⁵.

5. Scientific topics for discussion

5.1. Request for advice from the Pesticides Peer-Review (PREV) Unit on the genotoxic potential of PBA and PBA(OH) (EFSA-Q-2021-00118)

The Working Group (WG) Genotoxicity was asked to provide advice on the genotoxic potential of the common pyrethroid metabolites 3-phenoxybenzoic acid (PBA) and 3-(4'-hydroxyphenoxy)benzoic acid (PBA(OH)) (EFSA-Q-2021-00118), in the context of a European Commission mandate received by the Pesticides Peer-Review (PREV) Unit. The WG members concluded the discussion on the draft Appendix on the genotoxicity assessment. The document will be finalised by written procedure and submitted to the WG on pyrethroid common metabolites.

6. Any Other Business

6.1. Update on ECHA guidance document revision of genotoxicity requirements in the context of REACH legislation

Riccardo Crebelli updated the WG on the ongoing ECHA activities on the revision of the requirements for genotoxicity assessment under the REACH legislation. Riccardo participated in the meeting between ECHA and Member States (MSs) to report back on EFSA's guidance documents and approaches on genotoxicity assessment.

6.2. Update on the revision of DG SANTE Guidance Document on groundwater metabolites and Drinking Water Directive

The WG Genotoxicity was updated on the amendments of the DG SANTE Guidance documents on groundwater metabolites and the revised Drinking Water Directive.

6.3. Confirmation of next meeting dates and planning for 2022

The WG agreed on the workplan and next meeting dates.

³ http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf

⁴ http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf

⁵ <http://www.efsa.europa.eu/sites/default/files/wgs/cross-cutting-science/genotoxicity20182021.pdf>

7. Next meetings

The next meetings are scheduled for:

- 3 February 2022 (tele-meeting)
- 7 March 2022 (tele-meeting)
- 2 May 2022 (tele-meeting)
- 30 May 2022 (tele-meeting; only if strictly needed)
- 27 June 2022 (tele-meeting)
- 19 September 2022 (tele-meeting)
- 17 October 2022 (tele-meeting)
- 29 November 2022 (tele-meeting)
- 12 December 2022 (tele-meeting; only if strictly needed)



SCIENTIFIC COMMITTEE

MINUTES OF THE 39th MEETING OF THE WORKING GROUP ON GENOTOXICITY

Tele-conference, 6-7 October 2021

(Agreed on 20 October 2021)

Participants

- Working Group Members:

Diane Benford, Gabriele Aquilina, Margherita Bignami, Claudia Bolognesi, Riccardo Crebelli, Maria Dusinska, Rainer Gürtler, Francesca Marcon, Elsa Nielsen, and Christiane Vleminckx.

- EFSA:

SCER Unit: Maria Chiara Astuto, Daniela Maurici¹

FIP Unit: Maria Carfi², Camilla Smeraldi²

FEED Unit: Maria Vittoria Vettori²; Paola Manini², Fabiola Pizzo²

PREV Unit: Arianna Chiusolo³, Mathilde Colas⁴, Federica Crivellente⁵, Juan Manuel Parra Morte^{4,5}

- Observer:

Kyriaki Machera⁶ (Scientific Committee member)

1. Welcome and apologies for absence

Apologies were received by Josef Schlatter for both days and Kyriaki Machera for day 2.

2. Adoption of agenda

The agenda was adopted without changes.

1 Absent for agenda item 5.2

2 Only for agenda item 5.2

3 Only for agenda item 5.1

4 Only for agenda item 5.3

5 Only for agenda item 6.3

6 Absent for day 2

3. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence⁷ and the Decision of the Executive Director on Competing Interest Management⁸, EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

4. Agreement of the minutes of the 38th Working Group tele-meeting held on 7 September 2021, tele-conference.

The minutes of the 38th Working Group (WG) tele-meeting held on 7 September 2021 were agreed on 17 September 2021⁹.

5. Scientific topics for discussion

5.1. Request for advice from the Pesticides Peer-Review (PREV) Unit on the genotoxic potential of PBA and PBA(OH) (EFSA-Q-2021-00118)

The Working Group (WG) Genotoxicity was asked to provide advice on the genotoxic potential of the common pyrethroid metabolites 3-phenoxybenzoic acid (PBA) and 3-(4'-hydroxyphenoxy)benzoic acid (PBA(OH)) (EFSA-Q-2021-00118), in the context of a European Commission mandate received by the Pesticides Peer-Review (PREV) Unit. The WG members presented the assessment of the studies and preliminary discussions on the conclusions were held. The finalisation of the draft Appendix on the genotoxicity assessment to be submitted to the WG on pyrethroid common metabolites is expected for the next meeting.

5.2. Request for advice from the FEED Unit on the mono-azo dye Sunset yellow

The WG Genotoxicity was asked to provide advice on the approach proposed by the applicant to evaluate the genotoxic potential of the mono-azo dye Sunset yellow (FAD-2010-0366). Preliminary discussions were held. The outcome of the discussion will be reported to the FEEDAP Panel WG on Toxicology.

5.3. Ongoing revision of DG SANTE Guidance Document on groundwater metabolites

The WG Genotoxicity discussed the proposed amendments of the DG SANTE Guidance documents on groundwater metabolites, published in 2003¹⁰. The comments will be passed to the SANTE colleagues for further reflection and discussion.

6. Any Other Business

6.1. Update on ECHA guidance document revision of genotoxicity requirements in the context of REACH legislation

Riccardo Crebelli updated the WG on the ongoing ECHA activities on the revision of the requirements for genotoxicity assessment under REACH legislation. Riccardo participates in the meeting between

7 http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf

8 http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf

9 <http://www.efsa.europa.eu/sites/default/files/wgs/cross-cutting-science/genotoxicity20182021.pdf>

10 https://ec.europa.eu/food/system/files/2016-10/pesticides_ppp_app-proc_guide_fate_metabolites-groundwtr.pdf

ECHA and MSs to report back on EFSA's guidance documents and approaches on genotoxicity assessment.

6.2. EFSA NAMs Project - Proposal for a 3D GIT model for micronuclei cytochrome and comet assays

The WG was informed on a recent activity related to genotoxicity of the EFSA NAMs project, which is aimed at promoting the use of New Approach Methodologies (NAMs) in the context of the EFSA remit (i.e. food and feed). After being notified of an ongoing project on the development of reconstructed intestinal micronuclei cytochrome (RICyt) and comet (RICom) assays in a 3D human gastrointestinal tract (GIT) model for the assessment of genotoxicity, EFSA organised a teleconference with the proponents (Future Ready Food Safety Hub (FRESH) (Singapore), Agency for Science, Technology and Research (Singapore) and Swansea University (United Kingdom)) to explore if this activity might be considered as a possible case-study and included in the prioritisation scheme under the EFSA NAMs project for the next year(s). Claudia Bolognesi and Riccardo Crebelli, invited as independent experts at the meeting, provided their feedback on the project. As the next step, EFSA will discuss internally the proposal for possible prioritisation under the NAMs project for the next year(s).

6.3. Request from the PREV unit on groundwater metabolite IN-E9260

The WG was presented with a request from the PREV Unit regarding IN-E9260, a groundwater metabolite of Rimsulfuron, to be assessed in the context of a European Commission mandate received by the Pesticides Peer-Review (PREV) Unit.

6.4. OECD Consultation on draft Detailed Review Paper on Mini-Ames

The WG was informed on the ongoing consultation by OECD on a new draft Detailed Review Paper on the Miniaturised Ames test¹¹. Experts were encouraged to provide comments by 13 October 2021. EFSA will collect the comments, if any, and send them to the OECD for further consideration.

6.5. Confirmation of meeting dates in 2021 and planning for 2022

The WG agreed the workplan and next meeting dates.

7. Next meetings

The next meetings are scheduled for:

- 12 November 2021 (tele-meeting)
- 3 February 2022 (tele-meeting)
- 7 March 2022 (tele-meeting)
- 2 May 2022 (tele-meeting)

¹¹ <https://www.oecd.org/env/ehs/testing/draft-guidance-review-documents-monographs.htm>



SCIENTIFIC COMMITTEE

MINUTES OF THE 38th MEETING OF THE WORKING GROUP ON GENOTOXICITY

Tele-conference, 7 September 2021

(Agreed on 17 September 2021)

Participants

■ Working Group Members:

Diane Benford, Gabriele Aquilina, Margherita Bignami, Claudia Bolognesi, Riccardo Crebelli, Maria Dusinska, Rainer Gürtler¹, Francesca Marcon, Elsa Nielsen, Josef Schlatter, and Christiane Vleminckx.

■ EFSA:

SCER Unit: Maria Chiara Astuto; Daniela Maurici; Rositsa Serafimova

FIP Unit: Maria Carfi²; Esraa Elewa; Carla Martino²

Nutrition Unit: Leonard Matijevic³; Annamaria Rossi³

PREV Unit: Arianna Chiusolo⁴; Juan Manuel Parra Morte⁵

■ Observer:

Kyriaki Machera⁶ (Scientific Committee member)

1. Welcome and apologies for absence

No apologies were received.

2. Adoption of agenda

The agenda was adopted without changes.

¹ Absent for agenda item 5.2

² For agenda item 5.2

³ For agenda item 6.1

⁴ For agenda item 5.1

⁵ For agenda item 6

⁶ For agenda item 6

3. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence⁷ and the Decision of the Executive Director on Competing Interest Management⁸, EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

4. Agreement of the minutes of the 37th Working Group tele-meeting held on 4 June 2021, tele-conference.

The minutes of the 37th Working Group (WG) tele-meeting held on 4 June 2021 were agreed on 17 June 2021⁹.

5. Scientific topics for discussion

5.1. Request for advice from the Pesticides Peer-Review (PREV) Unit on the genotoxic potential of PBA and PBA(OH) (EFSA-Q-2021-00118)

The WG Genotoxicity was asked to provide advice on the genotoxic potential of the common pyrethroid metabolites 3-phenoxybenzoic acid (PBA) and 3-(4'-hydroxyphenoxy)benzoic acid (PBA(OH)) (EFSA-Q-2021-00118), in the context of a European Commission mandate received by the Pesticides Peer-Review (PREV) Unit. The WG was presented with the background information and available studies. Preliminary discussions were held and task allocation among the WG members was agreed. Discussion on this topic and evaluation of studies is scheduled for the next meeting.

5.2. Request for advice from the Food Ingredients and Packaging (FIP) Unit on an external question on smoke flavourings

The WG Genotoxicity was asked to provide advice on a question related to demonstration of target tissue exposure to complex mixtures in *in vivo* genotoxicity studies, received by the Food Ingredients and Packaging (FIP) Unit from an external requestor. Discussions were held and a draft response was prepared and provided to the FIP Unit to be presented to the Food Additives and Flavourings (FAF) Panel during their next plenary meeting (29-30 September 2021).

6. Any Other Business

6.1. Relevance of Hedgehog cells in Comet Assay assessment

The topic was presented to the WG and a general discussion followed to address the specific request.

6.2. Update on ECHA alignment on Chromosomal Aberration Test

Riccardo Crebelli informed the WG on the ongoing ECHA activities on the use of the Chromosomal Aberration Test under REACH information requirements.

6.3. Next steps, workplan and timelines

The WG agreed on the workplan and task distribution.

6.4. Confirmation of meeting dates in 2021 and planning for 2022

The WG discussed and agreed the next meeting dates for 2021. Meetings dates for 2022 will be discussed and agreed additionally.

⁷ http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf

⁸ http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf

⁹ <http://www.efsa.europa.eu/sites/default/files/wgs/cross-cutting-science/genotoxicity20182021.pdf>

7. Next meetings

- 6 October 2021 (tele-meeting)
- 12 November 2021 (tele-meeting)



SCIENTIFIC COMMITTEE

MINUTES OF THE 37th MEETING OF THE WORKING GROUP ON GENOTOXICITY

Tele-conference, 4 June 2021

(Agreed on 17 June 2021)

Participants

■ Working Group Members:

Diane Benford, Aquilina Gabriele, Margherita Bignami, Claudia Bolognesi, Riccardo Crebelli, Maria Dusinska, Rainer Gürtler, Francesca Marcon, Elsa Nielsen, Josef Schlatter, and Christiane Vleminckx.

■ EFSA:

SCER Unit: Christina Kyrkou; Daniela Maurici; Rositsa Serafimova

FIP Unit: Maria Carfi; Esraa Elewa

Nutrition Unit: Annamaria Rossi

PREV Unit: Juan Manuel Parra Morte

APDESK Unit: Sara De Berardis

■ Observers:

Frank Le Curieux (ECHA)

Kyriaki Machera (Scientific Committee member)

1. Welcome and apologies for absence

No apologies were received.

2. Adoption of agenda

The agenda was adopted without changes.

3. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence¹ and the Decision of the Executive Director on Competing Interest Management², EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

4. Agreement of the minutes of the 36th Working Group tele-meeting held on 11-12 May 2021, Parma.

The minutes of the 36th Working Group tele-meeting held on 11-12 May 2021 were agreed on 27 May 2021.³

5. Scientific topics for discussion

5.1. Scientific Committee Guidance on the assessment of aneugenicity

The WG Genotoxicity finalised the revision of the Guidance and addressing of the comments received during the public consultation. The revised draft of the guidance will be presented to the Scientific Committee for discussion and possible adoption during the next plenary meeting.

6. Next meetings 2021

- 3 and 7 September (tele-conference) (to be confirmed)
- 6-7 October
- 12 November

¹ http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf

² http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf

³ <http://www.efsa.europa.eu/sites/default/files/wgs/cross-cutting-science/genotoxicity20182021.pdf>



SCIENTIFIC COMMITTEE

MINUTES OF THE 36th MEETING OF THE WORKING GROUP ON GENOTOXICITY

Tele-conference, 11-12 May 2021

(Agreed on 27 May 2021)

Participants

■ Working Group Members:

Diane Benford, Aquilina Gabriele, Margherita Bignami, Claudia Bolognesi, Riccardo Crebelli, Maria Dusinska, Rainer Gürtler, Francesca Marcon, Elsa Nielsen, Josef Schlatter¹, and Christiane Vleminckx.

■ EFSA:

SCER Unit: Maria Chiara Astuto; Christina Kyrkou; Daniela Maurici; Rositsa Serafimova

FIP Unit: Maria Carfi; Esraa Elewa; Carla Martino

Nutrition Unit: Annamaria Rossi

PREV Unit: Juan Manuel Parra Morte

APDESK Unit: Sara De Berardis²

■ Observers:

Frank Le Curieux (ECHA)²

1. Welcome and apologies for absence

Apologies were received from Josef Schlatter for day 2.

2. Adoption of agenda

The agenda was adopted without changes.

¹ Only for day 1

² Only for agenda item 5.1

3. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence³ and the Decision of the Executive Director on Competing Interest Management⁴, EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

4. Agreement of the minutes of the 35th Working Group tele-meeting held on 22 April 2021, Parma.

The minutes of the 35th Working Group tele-meeting held on 22 April 2021 were agreed on 11 May 2021.⁵

5. Scientific topics for discussion

5.1. Scientific Committee Guidance on the assessment of aneugenicity

The two rapporteurs presented to the working group (WG) Genotoxicity proposals for revision of the draft guidance as result of the comments received during the public consultation. The WG discussed the revised draft guidance. Finalisation of the revision of the Guidance and addressing of the comments received is scheduled for the next WG meeting.

5.2. Request for advice from the Pesticides peer-review (PREV) Unit on the genotoxic potential of Propyzamide's metabolites (EFSA-Q-2021-00108)

The draft text on the two propyzamide metabolites *RH-24644* and *RH-26702* revised in light of the discussions in the previous meeting was discussed and finalised. The agreed document will be provided to the PREV Unit. No further support related with this request by the WG is needed.

6. Next meetings 2021

- 4 June (tele-conference)
- 8 July (tele-conference)
- 3 and 7 September (tele-conference) (to be confirmed)
- 6-7 October
- 12 November

³ http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf

⁴ http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf

⁵ <http://www.efsa.europa.eu/sites/default/files/wgs/cross-cutting-science/genotoxicity20182021.pdf>



SCIENTIFIC COMMITTEE

MINUTES OF THE 35th MEETING OF THE WORKING GROUP ON GENOTOXICITY

Tele-conference, 22 April 2021

(Agreed on 11 May 2021)

Participants

■ Working Group Members:

Diane Benford, Margherita Bignami, Claudia Bolognesi, Riccardo Crebelli, Maria Dusinska, Rainer Gürtler, Francesca Marcon, Elsa Nielsen, Josef Schlatter, and Christiane Vleminckx.

■ EFSA:

SCER Unit: Christina Kyrkou; Daniela Maurici¹; Rositsa Serafimova

FEED Unit: Paola Manini

FIP Unit: Maria Carfi; Esraa Elewa

Nutrition Unit: Annamaria Rossi

PREV Unit: Angelo Colagiorgi; Juan Manuel Parra Morte

APDESK Unit: Sara De Berardis²

■ Observers:

Frank Le Curieux (ECHA)²

1. Welcome and apologies for absence

Apologies were received from Gabriele Aquilina.

2. Adoption of agenda

The agenda was adopted without changes.

¹ Only for agenda items 5.3 and 6

² Only for agenda item 5.3

3. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence³ and the Decision of the Executive Director on Competing Interest Management⁴, EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

4. Agreement of the minutes of the 34th Working Group tele-meeting held on 25-26 March 2021, Parma.

The minutes of the 34th Working Group tele-meeting held on 25-26 March 2021 were agreed on 15 April 2021.⁵

5. Scientific topics for discussion

5.1. Pig-a assay – use for regulatory purposes

The working group (WG) Genotoxicity considered the value of the *in vivo* Pig-a assay in genotoxicity assessment for regulatory purposes because it was relevant for the evaluation of some metabolites of the pesticide propyzamide (item 5.2). This assay was regarded as a follow-up of positive *in vitro* mutation assays (ICH 2017⁶, OECD 2020a⁷, OECD 2020b⁸, Dertinger et al., 2021⁹). The *in vivo* Pig-a assay is a test for mutations in the phosphatidylinositol glycan class A gene (*Pig-a*) induced in bone marrow erythroid cells. It is carried out on peripheral blood erythrocytes; applying immunostaining/flow cytometry, cells expressing the gene are fluorescent while cells with the *Pig-a* mutant phenotype are non-fluorescent. The assay has the advantages - compared to the transgenic rodent mutation assay - of involving an endogenous mammalian rather than a bacterial gene, and of being applicable to normal rather than genetically engineered rodents. The assay was validated; data from more than 80 chemicals, chemical mixtures, nanomaterials as well as ionising radiation have been evaluated, and an OECD test guideline (TG) is currently being developed to support routine use of the assay for regulatory purposes (OECD 2020 a, b). The OECD plans to submit the draft TG to the Working Group of the National Coordinators for the Test Guidelines Programme (WNT) in November 2021, aiming at adoption in 2022¹⁰. The test system was already mentioned in the Genotoxicity testing strategy¹¹. The WG noted that several advances were made since then and that a draft protocol has been published for public consultations (OECD 2020 a, b). Therefore, the WG considers that the test would be acceptable as a follow-up of positive *in vitro* gene mutation results provided that it is conducted in compliance with the OECD protocol.

³ http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf

⁴ http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf

⁵ <http://www.efsa.europa.eu/sites/default/files/wgs/cross-cutting-science/genotoxicity20182021.pdf>

⁶ ICH (International Council for Harmonisation of Technical Requirements for Pharmaceuticals for Human Use). (2017) M7(R1): assessment and control of DNA reactive (mutagenic) impurities in pharmaceuticals to limit potential carcinogenic risk. Available at: <https://www.ema.europa.eu/en/ich-m7-assessment-control-dna-reactive-mutagenic-impurities-pharmaceuticals-limit-potential>

⁷ OECD (Organisation for Economic Cooperation and Development). (2020a) The *in vivo* erythrocyte Pig-a gene mutation assay - Part 1: detailed review paper and performance analysis (Publication 315). Available at: <http://www.oecd.org/chemicalsafety/testing/seriestesting-assessment-publications-number.htm>

⁸ OECD (Organisation for Economic Cooperation and Development). (2020b) The *in vivo* erythrocyte Pig-a gene mutation assay—Part 2: validation report (Publication 316). Available at: <http://www.oecd.org/chemicalsafety/testing/series-testing-assessment-publicationsnumber.htm>

⁹ Dertinger, S. D., Bhalli, J. A., Roberts, D. J., Stankowski, L. F., Jr, Gollapudi, B. B., Lovell, D. P., Recio, L., Kimoto, T., Miura, D., & Heflich, R. H. (2021). Recommendations for conducting the rodent erythrocyte Pig-a assay: A report from the HESI GTTC Pig-a Workgroup. *Environmental and molecular mutagenesis*, 62(3), 227–237. <https://doi.org/10.1002/em.22427>

¹⁰ https://www.oecd.org/chemicalsafety/testing/Test_Guidelines_Workplan_2020.pdf

¹¹ <https://efsa.onlinelibrary.wiley.com/doi/abs/10.2903/j.efsa.2011.2379>

5.2. Request for advice from the Pesticides peer-review (PREV) Unit on the genotoxic potential of Propyzamide's metabolites (EFSA-Q-2021-00108)

Discussion on the results of 28-day studies (including Pig-a assay) of the two propyzamide metabolites *RH-24644* and *RH-26702* along with possible conclusions were held during the meeting. A draft text was presented and will be finalised during the next meeting.

5.3. Scientific Committee Guidance on the assessment of aneugenicity

The two rapporteurs nominated, Riccardo Crebelli and Claudia Bolognesi, presented the comments received through the public consultation. The rapporteurs will continue the work by addressing the comments, while taking into account the discussions made during the meeting. The revised draft guidance and the comments received will be further discussed during the next meeting. The aim is to present the guidance for possible adoption at the Scientific Committee Plenary in June 2021.

6. Any other business

EFSA informed the WG Genotoxicity that the call for expression of interest for external experts Working Groups – Genotoxicity¹² was closed in the beginning of April. The list of potential candidates will be used by the EFSA Units for selection of experts when a need is identified. For what concerns the present WG, a discussion on identification of potential expertise to complement and enlarge the present composition was held. Some expertise may be strengthened in the future, depending on the upcoming mandates/requests for advice, even if already present in the current WG composition to better balance the workload (e.g. nanogenotoxicity evaluation, *in silico* methods used for genotoxicity assessment, *in vitro* and *in vivo* Comet assay, genome sequencing).

The WG Genotoxicity discussed lessons learnt from the work done in the last 9 months on titanium dioxide in support to the Food Ingredients and Packaging (FIP) Unit request. The feedback will be collected and used for future advice.

7. Next meetings 2021

- 11-12 May (tele-conference)
- 4 June (tele-conference)
- 8 July (tele-conference)
- 3 and 7 September (tele-conference) (to be confirmed)
- 6-7 October
- 12 November

¹² <https://careers.efsa.europa.eu/jobs/efsa-call-for-expression-of-interest-external-experts-working-groups-genotoxicity-254>



SCIENTIFIC COMMITTEE

MINUTES OF THE 34th MEETING OF THE WORKING GROUP ON GENOTOXICITY

Tele-conference, 25-26 March 2021

(Agreed on 15 April 2021)

Participants

■ Working Group Members:

Diane Benford, Gabriele Aquilina, Margherita Bignami, Claudia Bolognesi, Riccardo Crebelli, Maria Dusinska, Rainer Gürtler, Francesca Marcon, Elsa Nielsen, Josef Schlatter, and Christiane Vleminckx.

■ EFSA:

SCER Unit: Christina Kyrkou; Daniela Maurici; Rositsa Serafimova

FEED Unit: Paola Manini

FIP Unit: Maria Carfì and Esraa Elewa; Carla Martino

Nutrition Unit: Annamaria Rossi

PREV Unit: Juan Manuel Parra Morte

1. Welcome and apologies for absence

No apologies were received.

2. Adoption of agenda

The agenda was adopted without changes.

3. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence¹ and the Decision of the Executive Director on Competing Interest Management², EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues

¹ http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf

² http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf

discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

4. Agreement of the minutes of the 33rd Working Group tele-meeting held on 5 March 2021, Parma.

The minutes of the 33rd Working Group tele-meeting held on 5 March 2021 were agreed on 19 March 2021.³

5. Scientific topics for discussion

5.1. Request for advice from the Nutrition Unit on a testing strategy for the Novel Food (NF) applications on "Synthesised Cannabidiol (CBD)" (EFSA-Q-2019-00750, EFSA-Q-2020-00084, EFSA-Q-2020-00257)

The Nutrition Unit approached the Working group (WG) Genotoxicity with the aim of discussing the genotoxicity assessment strategy to be followed for Novel Food NF applications "Synthesised Cannabidiol (CBD)". A presentation on the available genotoxicity data provided by the different applicants was given, followed by discussion on the additional data needed for addressing the genotoxicity potential of the CBD. The WG Genotoxicity agreed on the additional data needed in line with the EFSA scientific opinion on genotoxicity testing strategies⁴. A similar strategy for genotoxicity evaluation will be applied to possible future NF dossiers regarding CBD extracted from plant.

5.2. Request for advice from the Food Ingredients and Packaging (FIP) Unit on an external question on smoke flavourings

The WG Genotoxicity provided advice on the recommended maximum dose to be used in *in vivo* genotoxicity studies of complex mixtures such as smoke flavourings, in reply to an external question received by Food Ingredients and Packaging (FIP) Unit from an external requestor. The provided reply is presented below:

As mentioned by EFSA in the recently published technical report "Outcome of the public consultation on the draft scientific guidance for the preparation of applications on smoke flavouring primary products"⁵ (see Table 2, reply to question #21, pages 38-39), the range of concentrations or doses used in *in vivo* genotoxicity tests, from a maximum tolerated dose (MTD) to a dose producing little or no toxicity, should be established on the basis of the results of a preliminary range-finding study. This is in line with the recommendations given in OECD test guidelines.

Furthermore, in both OECD TG 474 (*in vivo* MN assay) and 489 (*in vivo* Comet assay) it is reported: "If the test chemical does not produce toxicity in a range-finding study or based on existing data, the highest dose for an administration period of 14 days or more should be 1000 mg/kg body weight/day, or for administration periods of less than 14 days, 2000 mg/kg/body weight/day. However, if the test chemical does cause toxicity, the MTD should be the highest dose administered and the dose levels used should preferably cover a range from the maximum to a dose producing little or no toxicity. For certain types of test chemicals (e.g. human pharmaceuticals) covered by specific requirements, these limits may vary."

In the case of smoke flavouring primary products, the WG Genotoxicity is of the view that if no toxicity is observed in an appropriately designed range-finding study, it would be appropriate to test higher doses than the above-mentioned maximum limits, in order to increase the dose of each of the individual components. If this resulted in toxicity, the corresponding dose would be considered

³ <http://www.efsa.europa.eu/sites/default/files/wgs/cross-cutting-science/genotoxicity20182021.pdf>

⁴ <https://efsa.onlinelibrary.wiley.com/doi/abs/10.2903/j.efsa.2011.2379>

⁵ EFSA (European Food Safety Authority), 2021. Outcome of the public consultation on the draft scientific guidance for the preparation of applications on smoke flavouring primary products. <https://efsa.onlinelibrary.wiley.com/action/downloadSupplement?doi=10.2903%2Fj.efsa.2021.6435&file=efs26435-sup-0001-Appendix-H.pdf>

sufficiently high. However, in the absence of any toxicity, the highest dose to be applied is limited by the maximum volume that should be given to rodents. According to OECD TG 474 and 489, the maximum volume of liquid that can be administered by gavage at one time should not normally exceed 1 mL/100 g body weight except in the case of aqueous solutions where a maximum of 2 mL/100 g may be used.

5.3. Request for advice from the Pesticides peer-review (PREV) Unit on the genotoxic potential of Propyzamide's metabolites (EFSA-Q-2021-00108)

The WG was asked to provide advice on the genotoxic potential of the propyzamide metabolites *RH-24644* and *RH-26702*. Preliminary discussions were held and distribution of the tasks among the WG members was done. Discussion on the use of Pig-A assay in the regulatory context and evaluation and interpretation of the results of 28-day studies (including Pig-A assay) of the two metabolites will follow during the next meeting.

5.4. Request for advice from the Pesticides peer-review (PREV) Unit on the genotoxic potential of Penthioopyrad metabolite (EFSA-Q-2021-00047)

The WG was asked to provide advice on the genotoxic potential of the penthiopyrad metabolite M11 in particular on interpretation of the results of *in vitro* gene mutation assay (mouse lymphoma assay; MLA). Agreed advice was provided to PREV Unit to be considered in the addressing of the mandate.

5.5. Request for advice from the FEED Unit on the general approach for botanicals containing genotoxic/carcinogenic substances

The WG Genotoxicity was asked to provide advice on specific aspects related to the approach developed by the Panel on Additives and Products or Substances used in Animal Feed (FEEDAP) to assess the safety for target species of botanical preparations, which contain compounds that are genotoxic and/or carcinogenic. The topic was presented to the WG and discussion followed in order to address the specific request. No further support is needed from the WG.

5.6. Request for advice from the FIP Unit on titanium dioxide (E 171) (M-2020-0058)

The WG was informed that the Panel on Food Additives and Flavourings (FAF) adopted the scientific opinion on risk assessment of titanium dioxide (E 171). The opinion will be published shortly.

5.7. Scientific Committee Guidance on the assessment of aneugenicity

The WG discussed restart of the work for the finalisation of the draft Guidance on aneugenicity assessment. The draft guidance was published in March 2020 for public consultation. The consultation closed in the end of May 2020 and then the finalisation of the guidance was put on hold due to the priority given to requests for advice from the FIP Unit/FAF Panel on TiO₂ and styrene. In order to finalise the guidance, the WG chair, in consultation with the Head of the SCER Unit and the WG coordinator, agreed to nominate 2 rapporteurs: Riccardo Crebelli and Claudia Bolognesi. The draft guidance and the comments received will be in the agenda of the next meeting.

6. Next meetings 2021

- 22 April (tele-conference)
- 11-12 May (tele-conference)
- 4 June (tele-conference)
- 8-9 July (tele-conference)
- 3 and 7 September (tele-conference)
- 6-7 October
- 12 November



SCIENTIFIC COMMITTEE

MINUTES OF THE 33rd MEETING OF THE WORKING GROUP ON GENOTOXICITY

Tele-conference, 5 March 2021

(Agreed on 19 March 2021)

Participants

- Working Group Members:

Diane Benford, Gabriele Aquilina, Margherita Bignami, Claudia Bolognesi, Riccardo Crebelli, Maria Dusinska, Rainer Gürtler, Francesca Marcon, Elsa Nielsen, Josef Schlatter, and Christiane Vleminckx.

- EFSA:

SCER Unit: Christina Kyrkou; Rositsa Serafimova

FIP Unit: Maria Carfì; Esraa Elewa; Ana Maria Rincon; and Camilla Smeraldi

FEED Unit: Fabiola Pizzo

1. Welcome and apologies for absence

No apologies were received.

2. Adoption of agenda

The agenda was adopted without changes.

3. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence¹ and the Decision of the Executive Director on Competing Interest Management², EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

¹ http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf

² http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf

4. Agreement of the minutes of the 32nd Working Group tele-meeting held on 1 March 2021, Parma.

The minutes of the 32nd Working Group tele-meeting held on 1 March 2021 were agreed on 9 March 2021.³

5. Scientific topics for discussion

5.1. Request for advice from the Food Ingredients and Packaging (FIP) Unit on titanium dioxide (E 171) (M-2020-0058)

The Working group (WG) Genotoxicity discussed and addressed the comments received from the Panel on Food Additives and Flavourings (FAF). The WG discussed and finalised the Mode of action and Conclusion sections of the draft assessment of the genotoxicity of the food additive titanium dioxide (E 171). The draft assessment will be presented to the FAF Panel for discussion and possible adoption. The WG will be consulted if further clarification on genotoxicity assessment of titanium dioxide is needed.

6. Next meetings 2021

- 25-26 March (tele-conference)
- 22 April (tele-conference)
- 11-12 May (tele-conference)
- 4 June (tele-conference)
- 8-9 July (tele-conference)
- 3 and 7 September (tele-conference)
- 6-7 October
- 12 November

³ <http://www.efsa.europa.eu/sites/default/files/wgs/cross-cutting-science/genotoxicity20182021.pdf>



SCIENTIFIC COMMITTEE

MINUTES OF THE 32nd MEETING OF THE WORKING GROUP ON GENOTOXICITY

Tele-conference, 1 March 2021

(Agreed on 9 March 2021)

Participants

■ Working Group Members:

Diane Benford, Gabriele Aquilina, Margherita Bignami, Claudia Bolognesi, Riccardo Crebelli, Maria Dusinska, Rainer Gürtler, Francesca Marcon, Elsa Nielsen, Josef Schlatter and Christiane Vleminckx.

■ EFSA:

SCER Unit: Christina Kyrkou; Rositsa Serafimova

FIP Unit: Maria Carfi; Esraa Elewa; Ana Maria Rincon; and Camilla Smeraldi

1. Welcome and apologies for absence

No apologies were received.

2. Adoption of agenda

The agenda was adopted without changes.

3. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence¹ and the Decision of the Executive Director on Competing Interest Management², EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

¹ http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf

² http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf

4. Agreement of the minutes of the 31st Working Group tele-meeting held on 16 February 2021, Parma.

The minutes of the 31st Working Group tele-meeting held on 16 February 2021 were agreed on 2 March 2021.³

5. Scientific topics for discussion

5.1. Request for advice from the Food Ingredients and Packaging (FIP) Unit on titanium dioxide (E 171) (M-2020-0058)

The Working group (WG) Genotoxicity discussed and further elaborated the draft assessment of the genotoxicity potential of TiO₂ (E171) on the parts of the overall conclusion and mechanism of action. Discussions and further revision of the draft will continue during the next WG Genotoxicity meetings.

6. Next meetings 2021

- 5 March (tele-conference)
- 25-26 March (tele-conference)
- 22 April (tele-conference)
- 11-12 May (tele-conference)
- 4 June (tele-conference)
- 8-9 July (tele-conference)
- 3 and 7 September (tele-conference)
- 6-7 October
- 12 November

³ <http://www.efsa.europa.eu/sites/default/files/wgs/cross-cutting-science/genotoxicity20182021.pdf>



SCIENTIFIC COMMITTEE

MINUTES OF THE 31st MEETING OF THE WORKING GROUP ON GENOTOXICITY

Tele-conference, 16 February 2021

(Agreed on 2 March 2021)

Participants

■ Working Group Members:

Diane Benford, Gabriele Aquilina, Margherita Bignami, Claudia Bolognesi, Riccardo Crebelli, Maria Dusinska, Rainer Gürtler, Francesca Marcon, Elsa Nielsen, Josef Schlatter and Christiane Vleminckx.

■ EFSA:

SCER Unit: Christina Kyrkou; Rositsa Serafimova

FIP Unit: Maria Carfi; Esraa Elewa; Galvin Ndip Eyong; and Ana Maria Rincon

1. Welcome and apologies for absence

No apologies were received.

2. Adoption of agenda

The agenda was adopted without changes.

3. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence¹ and the Decision of the Executive Director on Competing Interest Management², EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

¹ http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf

² http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf

Following the update of the declaration of interest by expert *Maciej Stepnik* in relation to his change of employment as from 1 February 2021, EFSA assessed the new declared interest that resulted incompatible with his membership of the Genotoxicity working group (WG)³. *Maciej Stepnik*'s role in the WG Genotoxicity has been consequently changed from member to hearing expert. The chair thanked *Dr Stepnik* for his valid contribution to the WG.

4. Agreement of the minutes of the 30th Working Group tele-meeting held on 18-19 January 2021, Parma.

The minutes of the 30th Working Group tele-meeting held on 18-19 January 2021 were agreed on 29 January 2021.⁴

5. Scientific topics for discussion

5.1. Request for advice from the Food Ingredients and Packaging (FIP) Unit on titanium dioxide (E 171) (M-2020-0058)

The WG Genotoxicity discussed the impact of the route of exposure on the evaluation of the relevance of the results. The relevant changes were introduced in the criteria for evaluation of genotoxicity studies. The WG discussed and revised the draft assessment of the genotoxicity potential of TiO₂ (E171). The part related to summary of the evaluation of different genotoxicity endpoints was finalised and provided for discussion to the Panel on Food Additives and Flavourings (FAF). Discussion on an initial draft on the overall conclusion and mechanism of action was held. The text should be further elaborated by the experts and discussed again in the WG during the next WG meetings.

6. Next meetings 2021

- 1 March (tele-conference)
- 5 March (tele-conference)
- 25-26 March (tele-conference)
- 22 April (tele-conference)
- 11-12 May (tele-conference)
- 4 June (tele-conference)
- 8-9 July (tele-conference)
- 3 and 7 September (tele-conference)
- 6-7 October
- 12 November

³ http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf

⁴ <http://www.efsa.europa.eu/sites/default/files/wgs/cross-cutting-science/genotoxicity20182021.pdf>



SCIENTIFIC COMMITTEE

MINUTES OF THE 30th MEETING OF THE WORKING GROUP ON GENOTOXICITY

Tele-conference, 18-19 January 2021

(Agreed on 29 January 2021)

Participants

■ Working Group Members:

Diane Benford, Gabriele Aquilina, Margherita Bignami, Claudia Bolognesi, Riccardo Crebelli, Maria Dusinska, Rainer Gürtler, Francesca Marcon, Elsa Nielsen, Josef Schlatter, Maciej Stepnik, and Christiane Vleminckx.

■ EFSA:

SCER Unit: Christina Kyrkou; Reinhilde Schoonjans; Rositsa Serafimova; Jose Vicente Tarazona
FIP Unit: Maria Carfi; Esraa Elewa; Galvin Ndip Eyong; Ana Maria Rincon

1. Welcome and apologies for absence

No apologies were received.

2. Adoption of agenda

The agenda was adopted without changes.

3. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence¹ and the Decision of the Executive Director on Competing Interest Management,² EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process.

Certain interests were declared orally by the members before the beginning of the meeting. For further details on the outcome of the screening of the Oral Declaration of Interest made at the beginning of the meeting, please refer to the Annex.

¹ http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf

² http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf

4. Agreement of the minutes of the 29th Working Group tele-meeting held on 11-12 January 2021, Parma.

The minutes of the 29th Working Group tele-meeting held on 11-12 January 2021 were agreed on 22 January 2021.³

5. Scientific topics for discussion

5.1. Request for advice from the Food Ingredients and Packaging (FIP) Unit on titanium dioxide (E 171) (M-2020-0058)

The Working group (WG) Genotoxicity was informed that two *in vitro* genotoxicity studies were submitted by Industry. The WG finalized the evaluation of the studies considered as new evidence as well as *in vitro* studies that were previously considered in the re-evaluation of titanium dioxide (E 171) as a food additive⁴ by the Panel on Food Additives and Nutrient Sources added to food (ANS) Panel in 2016. Some characteristics of the test material (e.g. size and shape of the particles) and the level of dispersion of the nanoparticles were discussed with respect to how they should be considered in the evaluation of the relevance of the results. The criteria for evaluation of reliability and relevance of results of genotoxicity studies were finalized. Lines of evidence for different endpoints were discussed and a first draft was prepared to be presented to the Panel on Food Additives and Flavourings (FAF).

6. Next meetings 2021

- 16 February (tele-conference)
- 5 March (tele-conference)
- 25-26 March (tele-conference)
- 22 April
- 11-12 May
- 4 June
- 8-9 July

Annex

Interests and actions resulting from the Oral Declaration of Interest done at the beginning of the meeting

CONFLICTS OF INTEREST: With regard to this meeting, *Dr Maria Dusinska* declared the following interest: *co-author of two publications included in the evaluation of the genotoxic potential of titanium dioxide*. In accordance with EFSA's Policy on Independence⁵ and the Decision of the Executive Director on Competing Interest Management⁶, and taking into account the specific matters discussed at the meeting in question, the interest above was deemed to represent a Conflict of Interest (CoI). This resulted in the exclusion of the expert from the evaluation and discussion of the scientific publications where she is listed among the authors.

³ <http://www.efsa.europa.eu/sites/default/files/wgs/cross-cutting-science/genotoxicity20182021.pdf>

⁴ <https://www.efsa.europa.eu/en/efsajournal/pub/4545>

⁵ http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf

⁶ http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf



SCIENTIFIC COMMITTEE

MINUTES OF THE 29th MEETING OF THE WORKING GROUP ON GENOTOXICITY

Tele-conference, 11-12 January 2021

(Agreed on 22 January 2021)

Participants

- Working Group Members:

Diane Benford, Gabriele Aquilina, Margherita Bignami, Claudia Bolognesi, Riccardo Crebelli, Maria Dusinska, Rainer Gürtler, Francesca Marcon, Josef Schlatter, Maciej Stepnik, and Christiane Vleminckx.

- EFSA:

SCER Unit: Christina Kyrkou; Rositsa Serafimova

FIP Unit: Maria Carfì; Esraa Elewa; Galvin Ndip Eyong; Camilla Smeraldi

FEED: Fabiola Pizzo

1. Welcome and apologies for absence

Apologies were received from Elsa Nielsen.

2. Adoption of agenda

The agenda was adopted without changes.

3. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence¹ and the Decision of the Executive Director on Competing Interest Management,² EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process.

¹ http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf

² http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf

Certain interests were declared orally by the members before the beginning of the meeting. For further details on the outcome of the screening of the Oral Declaration of Interest made at the beginning of the meeting, please refer to the Annex.

4. Agreement of the minutes of the 28th Working Group tele-meeting held on 10 December 2020, Parma.

The minutes of the 28th Working Group tele-meeting held on 10 December 2020 were agreed on 21 December 2020.³

5. Scientific topics for discussion

5.1. Request for advice from the Food Ingredients and Packaging (FIP) Unit on titanium dioxide (E 171) (M-2020-0058)

The working group (WG) Genotoxicity received a feedback from the Panel on Food Additives and Flavourings (FAF). The WG was informed that the FAF Panel agrees with the approach applied by the WG and appreciates the work done so far. The WG Genotoxicity discussed the studies retrieved from the OECD dossier⁴ as well as *in vivo* studies that were previously considered in the re-evaluation of titanium dioxide (E 171) as a food additive⁵ by the Panel on Food Additives and Nutrient Sources added to food (ANS) in 2016. The criteria for evaluation of reliability and relevance of results of genotoxicity studies were re-discussed and revised where needed. Discussions will follow during the next meetings.

6. Next meetings 2021

- 18-19 January (tele-conference)
- 16 February (tele-conference)
- 5 March (tele-conference)
- 25-26 March (tele-conference)
- 22 April
- 11-12 May
- 4 June
- 8-9 July

Annex

Interests and actions resulting from the Oral Declaration of Interest done at the beginning of the meeting

CONFLICTS OF INTEREST: With regard to this meeting, *Dr Maria Dusinska* declared the following interest: *co-author of two publications included in the evaluation of the genotoxic potential of titanium dioxide*. In accordance with EFSA's Policy on Independence⁶ and the Decision of the Executive Director

³ <http://www.efsa.europa.eu/sites/default/files/wgs/cross-cutting-science/genotoxicity20182021.pdf>

⁴ [http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=ENV/JM/MONO\(2016\)25&docLanguage=En](http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=ENV/JM/MONO(2016)25&docLanguage=En)

⁵ <https://www.efsa.europa.eu/en/efsajournal/pub/4545>

⁶ http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf

on Competing Interest Management⁷, and taking into account the specific matters discussed at the meeting in question, the interest above was deemed to represent a Conflict of Interest (CoI). This resulted in the exclusion of the expert from the evaluation and discussion of the scientific publications where she is listed among the authors.

Similarly, *Dr Maciej Stepnik* declared the following interest: performing *in vitro* studies, within *the Nanogenotox project*⁸, included in the evaluation of the titanium dioxide. In accordance with EFSA's Policy on Independence⁹ and the Decision of the Executive Director on Competing Interest Management¹⁰, and taking into account the specific matters discussed at the meeting in question, the interest above was deemed to represent a Conflict of Interest (CoI). This resulted in the exclusion of the expert from the evaluation and discussion of the studies which he performed.

⁷ http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf

⁸ <https://www.anses.fr/en/content/nanogenotox-project>

⁹ http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf

¹⁰ http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf



SCIENTIFIC COMMITTEE

MINUTES OF THE 28th MEETING OF THE WORKING GROUP ON GENOTOXICITY

Tele-conference, 10 December 2020

(Agreed on 21 December 2020)

Participants

- Working Group Members:

Diane Benford, Gabriele Aquilina, Margherita Bignami, Claudia Bolognesi, Riccardo Crebelli, Maria Dusinska, Rainer Gürtler, Francesca Marcon, Elsa Nielsen, Josef Schlatter, Maciej Stepnik, and Christiane Vleminckx.

- EFSA:

SCER Unit: Christina Kyrkou; Rositsa Serafimova

FIP Unit: Maria Carfi; Esraa Elewa; Galvin Ndip Eyong

FEED Unit: Fabiola Pizzo

1. Welcome and apologies for absence

No apologies were received.

2. Adoption of agenda

The agenda was adopted without changes.

3. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence¹ and the Decision of the Executive Director on Competing Interest Management², EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

¹ http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf

² http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf

4. Agreement of the minutes of the 27th Working Group tele-meeting held on 9 November 2020, Parma.

The minutes of the 27th Working Group tele-meeting held on 9 November 2020 were agreed on 20 November 2020³.

5. Scientific topics for discussion

5.1. Request for advice from the Food Ingredients and Packaging (FIP) Unit on titanium dioxide (E 171) (M-2020-0058)

The working group (WG) Genotoxicity finalised the discussions on the evaluation of the individual studies (both *in vitro* and *in vivo* studies) retrieved after the re-evaluation of titanium dioxide (E 171) as a food additive⁴ by the Food Additives and Nutrient Sources (ANS) Panel in 2016. Relevant amendments were introduced to the individual evaluation, where it was needed. Preliminary lines of evidence for the genotoxicity endpoints based only on these “new” evidences were presented and discussed. A summary of the status of the genotoxicity evaluation of E 171 was prepared and provided to the Panel on Food Additives and Flavourings (FAF). Discussions will continue during the next meetings.

6. Any other business

The experts of the WG Genotoxicity were reminded to provide their comments on the revised chapter on the genotoxicity assessment of the ‘Guidance on risk assessment of the application of nanoscience and nanotechnologies in the food and feed chain: Part 1, human and animal health’⁵. No discussions were held.

7. Next meetings 2021

- 11-12 January (tele-conference)
- 18-19 January (tele-conference)
- 3 February (tele-conference)
- 16 February (tele-conference)
- 5 March (tele-conference)
- 25-26 March (tele-conference)
- 22 April
- 11-12 May
- 4 June
- 8-9 July

³ <http://www.efsa.europa.eu/sites/default/files/wgs/cross-cutting-science/genotoxicity20182021.pdf>

⁴ <https://www.efsa.europa.eu/en/efsajournal/pub/4545>

⁵ <https://www.efsa.europa.eu/en/efsajournal/pub/5327>



SCIENTIFIC COMMITTEE

MINUTES OF THE 27th MEETING OF THE WORKING GROUP ON GENOTOXICITY

Tele-conference, 9 November 2020

(Agreed on 20 November 2020)

Participants

■ Working Group Members:

Diane Benford, Gabriele Aquilina, Margherita Bignami, Claudia Bolognesi, Riccardo Crebelli, Maria Dusinska, Rainer Gürtler, Francesca Marcon, Elsa Nielsen, Josef Schlatter, Maciej Stepnik, and Christiane Vleminckx.

■ EFSA:

SCER Unit: Christina Kyrkou; Rositsa Serafimova; Jose Tarazona

FIP Unit: Maria Carfi; Esraa Elewa; Galvin Ndip Eyong

FEED Unit: Fabiola Pizzo

1. Welcome and apologies for absence

No apologies were received.

2. Adoption of agenda

The agenda was adopted without changes.

3. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence¹ and the Decision of the Executive Director on Competing Interest Management,² EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process.

¹ http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf

² http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf

Certain interests were declared orally by the members before the beginning of the meeting. For further details on the outcome of the screening of the Oral Declaration of Interest made at the beginning of the meeting, please refer to the Annex.

4. Agreement of the minutes of the 26th Working Group tele-meeting held on 19 October 2020, Parma.

The minutes of the 26th Working Group tele-meeting held on 19 October 2020 were agreed on 3 November 2020.³

5. Scientific topics for discussion

5.1. Request for advice from the Food Ingredients and Packaging (FIP) Unit on titanium dioxide (E 171) (M-2020-0058)

A presentation on some additional elements to be considered in the dispersion assessment was provided to the working group (WG) Genotoxicity. The experts were informed that these additional considerations might lead to change of the dispersion assessment for some of the individual studies and, as a consequence, re-evaluation of the relevance of the results of these particular studies might be needed.

The WG Genotoxicity continued with the discussions on the evaluation of the individual papers; *in vitro* miscellaneous assays, and the studies from the papers retrieved in September. The discussions will continue during the next WG meetings.

6. Any Other Business

In relation to the draft mandate on evaluation of benzimidazole substances (thiophanate-methyl and carbendazim) the WG Genotoxicity was informed that, based on the discussions held during the previous WG meeting and considering the limited resources of the WG, the mandate is going to be addressed under the peer-review process of risk assessment of active substances inviting a few experts from the WG to contribute to this process.

The WG Genotoxicity was also informed that, regarding meetings in 2021, all meetings until the 31st of March 2021 will be held as tele-conferences. Further update for the period starting in April, will follow.

7. Next meetings 2020-2021

- 10 December (tele-conference)
- 11-12 January (tele-conference)
- 18-19 January (tele-conference)
- 3 February (tele-conference)
- 16 February (tele-conference)
- 5 March (tele-conference)
- 25-26 March (tele-conference)
- 22 April

³ <http://www.efsa.europa.eu/sites/default/files/wgs/cross-cutting-science/genotoxicity20182021.pdf>

- 11-12 May
- 4 June
- 8-9 July

Annex

Interests and actions resulting from the Oral Declaration of Interest done at the beginning of the meeting

CONFLICT OF INTEREST: With regards to this meeting, *Dr Maria Dusinska* declared the following interest: *co-author of two publications included in the evaluation of the genotoxic potential of titanium dioxide*. In accordance with EFSA's Policy on Independence⁴ and the Decision of the Executive Director on Competing Interest Management⁵, and taking into account the specific matters discussed at the meeting in question, the interest above was deemed to represent a Conflict of Interest (CoI). This resulted in the exclusion of the expert from the evaluation and discussion of the scientific publications where she is listed among the authors.

⁴ http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf

⁵ http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf



SCIENTIFIC COMMITTEE

MINUTES OF THE 26th MEETING OF THE WORKING GROUP ON GENOTOXICITY

Tele-conference, 19 October 2020

(Agreed on 3 November 2020)

Participants

- Working Group Members:

Diane Benford, Gabriele Aquilina, Margherita Bignami, Claudia Bolognesi, Riccardo Crebelli, Maria Dusinska, Rainer Gürtler, Francesca Marcon, Elsa Nielsen, Josef Schlatter, Maciej Stepnik, and Christiane Vleminckx.

- EFSA:

SCER Unit: Christina Kyrkou; Rositsa Serafimova, Jose Tarazona

FIP Unit: Maria Carfì; Esraa Elewa; Ana Maria Rincon; Camilla Smeraldi

PREV/PRES Unit: Juan Manuel Parra Morte and Bénédicte Vagenende (subsection 5.2)

1. Welcome and apologies for absence

No apologies were received.

2. Adoption of agenda

The agenda was adopted without changes.

3. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence² and the Decision of the Executive Director on Competing Interest Management³, EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

² http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf

³ http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf

4. Agreement of the minutes of the 25th Working Group tele-meeting held on 2 October 2020, Parma.

The minutes of the 25th Working Group tele-meeting held on 2 October 2020 were agreed on 18 October 2020.⁴

5. Scientific topics for discussion

5.1. Request for advice from the Food Ingredients and Packaging (FIP) Unit on titanium dioxide (E 171) (M-2020-0058)

The working group (WG) Genotoxicity continued with the discussions on the evaluation of the individual papers on *in vivo* studies. The discussions will continue during the next WG meetings.

5.2. Request for advice from the Pesticide peer Review (PREV) and Pesticide Residues (PRES) Units on thiophanate-methyl and carbendazim (draft) mandate

The Pesticide peer Review (PREV) and Pesticide Residues (PRES) Units presented to the WG Genotoxicity the draft mandate on evaluation of benzimidazole substances (thiophanate-methyl and carbendazim), the potential request to the WG for advice on the clastogenic potential of the two substances and the list of the relevant studies. Different approaches for addressing the mandate and in particular the part of the evaluation of the clastogenic potential of the substances, potential involvement of the WG Genotoxicity, Member States (involved in the evaluation of the two substances under different regulations) and the European Chemicals Agency (ECHA) were discussed, together with the related timelines in each of these approaches. The possible ways forward need to be discussed internally in EFSA and with the other parties involved before finalisation and acceptance of the mandate. The WG Genotoxicity will be informed on the final decision, its eventual involvement in this mandate and the related deadline.

6. Any Other Business

A request from the cross-cutting WG Nanotechnologies for a feedback on the revised chapter on the genotoxicity assessment of the 'Guidance on risk assessment of the application of nanoscience and nanotechnologies in the food and feed chain: Part 1, human and animal health'⁵ was presented to the WG Genotoxicity. The experts are asked to provide their comments which will be further discussed (if needed) during the next WG meetings.

7. Next meetings 2020-2021 (tele-conferences)

- 9 November
- 10 December
- 18-19 January (to be confirmed)

⁴ <http://www.efsa.europa.eu/sites/default/files/wgs/cross-cutting-science/genotoxicity20182021.pdf>

⁵ <https://www.efsa.europa.eu/en/efsajournal/pub/5327>



SCIENTIFIC COMMITTEE

MINUTES OF THE 25th MEETING OF THE WORKING GROUP ON GENOTOXICITY

Tele-conference, 2 October 2020

(Agreed on 19 October 2020)

Participants

■ Working Group Members:

Diane Benford, Gabriele Aquilina, Margherita Bignami, Claudia Bolognesi, Riccardo Crebelli, Maria Dusinska, Rainer Gürtler, Francesca Marcon, Josef Schlatter, Maciej Stepnik, and Christiane Vleminckx.

■ EFSA:

SCER Unit: Christina Kyrkou; Rositsa Serafimova

FIP Unit: Maria Carfi; Esraa Elewa

1. Welcome and apologies for absence

Apologies were received from Elsa Nielsen.

2. Adoption of agenda

The agenda was adopted without changes.

3. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence² and the Decision of the Executive Director on Competing Interest Management,³ EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process.

² http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf

³ http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf

Certain interests were declared orally by the members before the beginning of the meeting. For further details on the outcome of the screening of the Oral Declaration of Interest made at the beginning of the meeting, please refer to the Annex.

4. Agreement of the minutes of the 24th Working Group meeting held on 14-15 September 2020, Parma.

The minutes of the 24th Working Group meeting held on 14-15 September 2020 were agreed on 5 October 2020.⁴

5. Scientific topics for discussion

5.1. Request for advice from the Food Ingredients and Packaging (FIP) Unit on titanium dioxide (E 171) (M-2020-0058)

The working group (WG) Genotoxicity received a new set of publications, related with evaluation of genotoxicity potential of E171, covering the period until the beginning of October 2020. These publications were distributed for evaluation among the experts. Progress was made in the discussions of the evaluation of the individual papers (both *in vitro* and *in vivo* studies). The discussions will continue during the next WG meetings.

6. Any Other Business

The WG Genotoxicity was informed about a potential request for advice from the Pesticide Residues (PRES) Unit on benzimidazole substances. Pending clarification on the mandate from the European Commission, more information will follow.

The WG was also informed that the Panel on Plant Protection Products and their Residues (PPR Panel) adopted the statement "Scientific advice on the translocation potential by *Pseudomonas chlororaphis* MA342 in plants after seed treatment of cereals and peas and, if applicable, for a revision of the assessment of the risk to humans" for which the WG Genotoxicity was consulted. The statement will be published shortly.

•

7. Next meetings 2020-2021 (tele-conferences)

- 19 October
- 9 November
- 10 December (to be confirmed)
- 18-19 January (to be confirmed)

⁴ <http://www.efsa.europa.eu/sites/default/files/wgs/cross-cutting-science/genotoxicity20182021.pdf>

Annex

Interests and actions resulting from the Oral Declaration of Interest done at the beginning of the meeting

CONFLICT OF INTEREST: With regard to this meeting, *Dr Maria Dusinska* declared the following interest: *co-author of two publications included in the evaluation of the genotoxic potential of titanium dioxide* while *Dr Riccardo Crebelli* declared the interest: *co-author of one publication included in the evaluation of the genotoxic potential of titanium dioxide*. In accordance with EFSA's Policy on Independence⁵ and the Decision of the Executive Director on Competing Interest Management⁶, and taking into account the specific matters discussed at the meeting in question, the interests above are deemed to represent Conflicts of Interest (CoI). This resulted in the exclusion of the experts from the evaluation and discussion of the respective scientific publications where they are listed among the authors.

⁵ http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf

⁶ http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf



SCIENTIFIC COMMITTEE

MINUTES OF THE 24th MEETING OF THE WORKING GROUP ON GENOTOXICITY

Tele-conference, 14-15 September 2020

(Agreed on 5 October 2020)

This meeting, originally scheduled as a physical meeting, was converted into a tele-conference to avoid travelling to EFSA in line with the measures established to reduce the risk of coronavirus infection.

Participants

■ Working Group Members:

Diane Benford, Gabriele Aquilina, Margherita Bignami, Claudia Bolognesi, Riccardo Crebelli, Maria Dusinska, Rainer Gürtler, Francesca Marcon, Elsa Nielsen, Josef Schlatter, Maciej Stepnik, and Christiane Vleminckx

■ EFSA:

SCER Unit: Christina Kyrkou; Rositsa Serafimova; Jose Vicente Tarazona (only on 14 September)

FIP Unit: Maria Carfì; Esraa Elewa; Ndip Galvin Eyong; Ana Maria Rincon; Camilla Smeraldi

1. Welcome and apologies for absence

The cross-cutting working group (WG) Genotoxicity welcomed Maciej Stepnik as a new member of the Working Group. No apologies were received.

2. Adoption of agenda

The agenda was adopted without changes.

3. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence² and the Decision of the Executive Director on Competing Interest Management,³ EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process.

Certain interests were declared orally by the members before the beginning of the meeting. For further details on the outcome of the screening of the Oral Declaration of Interest made at the beginning of the meeting, please refer to the Annex.

4. Agreement of the minutes of the 23rd Working Group meeting held on 20 July 2020, Parma.

The minutes of the 23rd Working Group meeting held on 20 July 2020 were agreed on 3 August 2020.⁴

5. Scientific topics for discussion

5.1. Request for advice from the Food Ingredients and Packaging (FIP) Unit on titanium dioxide (E 171) (M-2020-0058)

An update on the TiO₂ (E171) mandate was provided by the FIP Unit related to: the vote of the European Parliament Committee on Environment, Food Safety and Public Health (ENVI) on the European Commission (EC) proposal for the amendment of the EU specifications for E171^{5,6}; the extension of the deadline for finalization of the risk assessment of E171 till March 2021 and future activities related with the extended deadline. The WG Genotoxicity was informed that a new literature search will be performed to cover the publications till the end of 2020. The new evidences once made available to the WG Genotoxicity, will be considered in the assessment of the genotoxic potential of E171. An update on the advice on assessment of the level of dispersion prepared by the cross-cutting WG Nanotechnology was provided, including clarifications on the evaluation of level of dispersion for some of the individual studies. Extensive discussions on the evaluation of individual papers on genotoxicity (*in vitro* studies) started and will continue during the coming WG meetings.

6. Other business

The WG Genotoxicity was informed that the Panel on Food Contact Materials, Enzymes and Processing Aids (CEP) adopted the scientific opinion on risk assessment of styrene including the technical report on genotoxicity assessment prepared by the WG Genotoxicity. The opinion will be published shortly.

7. Next meetings 2020 (tele-conferences)

- 2 October
- 19 October
- 9 November

² http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf

³ http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf

⁴ <http://www.efsa.europa.eu/sites/default/files/wgs/cross-cutting-science/genotoxicity20182021.pdf>

⁵ https://www.europarl.europa.eu/meetdocs/2014_2019/plmrep/COMMITTEES/ENVI/DV/2020/09-07/1212067EN.pdf?utm_source=POLITICO.EU&utm_campaign=19201bb861-EMAIL_CAMPAIGN_2020_09_07_08_17&utm_medium=email&utm_term=0_10959edeb5-19201bb861-189881729

⁶ <https://www.europarl.europa.eu/committees/en/envi/meetings/votes>

Annex

Interests and actions resulting from the Oral Declaration of Interest done at the beginning of the meeting

CONFLICT OF INTEREST: With regard to this meeting, *Dr Maria Dusinska* declared the following interest: *co-author of three publications included in the evaluation of the genotoxic potential of titanium dioxide*. In accordance with EFSA's Policy on Independence⁷ and the Decision of the Executive Director on Competing Interest Management⁸, and taking into account the specific matters discussed at the meeting in question, the interest above was deemed to represent a Conflict of Interest (CoI). This resulted in the exclusion of the expert from the evaluation and discussion of the scientific publications where she is listed among the authors.

⁷ http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf

⁸ http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf



SCIENTIFIC COMMITTEE

MINUTES OF THE 23rd MEETING OF THE WORKING GROUP ON GENOTOXICITY

Tele-conference, 20 July 2020

(Agreed on 3 August 2020)

Participants

- Working Group Members:

Diane Benford, Gabriele Aquilina, Margherita Bignami, Claudia Bolognesi, Riccardo Crebelli, Maria Dusinska¹, Rainer Gürtler, Francesca Marcon, Josef Schlatter, and Christiane Vleminckx.

- Hearing Experts²:

Karen Ildico Hirsch-Ernst (for subsection 5.3)

- EFSA:

SCER Unit: Christina Kyrkou; Rositsa Serafimova; Jose Vicente Tarazona (for subsection 5.1)

FEED Unit: Paola Manini (for subsection 5.3 and 5.4)

FIP Unit: Maria Carfì; Esraa Elewa; Ndip Galvin Eyong, Ana Maria Rincon, and Camilla Smeraldi (for subsection 5.1); Carla Martino (for subsection 5.4); Ellen Van Haver (for subsection 5.2)

NUTRI Unit: Tilemachos Goumperis (for subsection 5.3) and Annamaria Rossi (for subsection 5.3 and 5.4)

PREV Unit: Juan Manuel Parra Morte (for subsection 5.4)

1. Welcome and apologies for absence

The cross-cutting working group (ccWG) Genotoxicity welcomed Maria Dusinska as a new member of the WG. Apologies were received from Elsa Nielsen.

2. Adoption of agenda

The agenda was adopted without changes.

¹ Present in the morning

² As defined in Article 17 of the Decision of the Executive Director concerning the selection of members of the Scientific Committee, the Scientific Panels, and the selection of external experts to assist EFSA with its scientific work:
<http://www.efsa.europa.eu/en/keydocs/docs/expertselection.pdf>.

3. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence³ and the Decision of the Executive Director on Competing Interest Management⁴, EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

4. Agreement of the minutes of the 22nd Working Group meeting held on 9-10 July 2020, Parma.

The minutes of the 22nd Working Group meeting held on 9-10 July 2020 were agreed on 22 July 2020.⁵

5. Scientific topics for discussion

5.1. Request for advice from the Food Ingredients and Packaging (FIP) Unit on titanium dioxide (E 171) (M-2020-0058)

The individual evaluations of the selected papers, as case studies, were discussed and agreed. Relevant amendments in the summary tables as well as the distribution of all remaining papers for evaluation among the experts were done. The next steps and deadlines were discussed and agreed. Discussions on the individual papers' evaluation is scheduled for the next WG meeting.

5.2. Request for advice from the working group Food Contact Materials (WG FCM) on styrene (FCM No 193) (M-2019-0195)

A proposal prepared by the WG FCM to follow-up on the risk assessment of styrene including genotoxicity evaluation was presented to the ccWG Genotoxicity for their consideration and feedback. The proposal will be presented to the Food Contact Materials, Enzymes and Processing Aids (CEP) Panel in September.

5.3. Request for advice from the Nutrition Unit on Polyphenols derived from lychee fruit (*Litchi chinensis*) and green tea leaves (*Camellia sinensis*) as a novel food (NF 2018/0443) (EFSA-Q-2018-00556⁶)

The ccWG Genotoxicity was asked to provide advice on the requested additional data related with genotoxicity evaluation, as a part of the risk assessment, of the Novel Food (NF) 'Polyphenols from lychee fruit and green tea leaves'. The Nutrition Unit presented the background information and related issues to the topic as well as the request to the ccWG Genotoxicity. The hearing expert Karen Ildico Hirsch-Ernst presented the available genotoxicity dataset and the genotoxicity evaluation performed by the WG Novel Foods. The requested piece of advice from the ccWG Genotoxicity was provided during the discussion that followed the presentation and will be included in the reply to the request for advice prepared by the Nutrition Unit.

5.4. Public Consultation on the Draft Scientific Committee guidance on the assessment of aneugenicity

The WG Genotoxicity continued addressing the received comments from the Public Consultation on the draft guidance on aneugenicity assessment⁷. The discussions will continue during next meetings.

³ http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf

⁴ http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf

⁵ <http://www.efsa.europa.eu/sites/default/files/wgs/cross-cutting-science/genotoxicity20182021.pdf>

⁶ <http://registerofquestions.efsa.europa.eu/roqFrontend/wicket/page?10>

⁷ <https://www.efsa.europa.eu/en/consultations/call/public-consultation-draft-scientific-committee-guidance-assessment>

6. Next meetings 2020 (tele-conferences)

- 14-15 September
- 2 October
- 19 October
- 9 or 10 November



SCIENTIFIC COMMITTEE

MINUTES OF THE 22nd MEETING OF THE WORKING GROUP ON GENOTOXICITY

Tele-conference, 9-10 July 2020

(Agreed on 22 July 2020)

This meeting, originally scheduled as a physical meeting, was converted into a tele-conference to avoid travelling to EFSA in line with the measures established to reduce the risk of coronavirus infection.

Participants

- Working Group Members:
Diane Benford, Gabriele Aquilina, Margherita Bignami, Claudia Bolognesi, Riccardo Crebelli, Rainer Gürtler, Francesca Marcon, Elsa Nielsen¹, and Christiane Vleminckx.
- EFSA:
SCER Unit: Christina Kyrkou; Rositsa Serafimova; Jose Vicente Tarazona (for subsection 5.1)
FEED Unit: Paola Manini, Fabiola Pizzo (for subsection 5.1)
FIP Unit: Maria Carfì; Esraa Elewa; Ndip Galvin Eyong, Ana Maria Rincon, and Camilla Smeraldi (for subsection 5.1)
NUTRI Unit: Annamaria Rossi (for subsection 5.2)
PREV Unit: Juan Manuel Parra Morte (for subsection 5.2)

1. Welcome and apologies for absence

Apologies were received from Elsa Nielsen¹ and Josef Schlatter.

2. Adoption of agenda

The agenda was adopted without changes.

¹ Present only in the afternoon of day 1

3. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence² and the Decision of the Executive Director on Competing Interest Management³, EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

4. Agreement of the minutes of the 21st Working Group meeting held on 18-19 June 2020, Parma.

The minutes of the 21st Working Group meeting held on 18-19 June 2020 were agreed on 6 July 2020.⁴

5. Scientific topics for discussion

5.1. Request for advice from the FIP Unit on titanium dioxide (E 171) (M-2020-0058)

The cross-cutting Working Group (ccWG) Genotoxicity discussed the evaluation of a set of papers selected as case studies. The summary tables and the evaluation criteria were amended accordingly based on the experience gained with the evaluation of the selected papers. An approach prepared by the ccWG Nanotechnology for evaluation of the level of dispersion of the nanoparticles as a part of the evaluation of the relevance of the test results was presented to the ccWG Genotoxicity. Applicability of this approach was tested to the same set of selected papers. A revision of the evaluation of the selected papers in the light of the agreed amendments of the evaluation criteria will be discussed in the next meeting. The distribution of the evaluation of the remaining papers and discussion on the next steps is foreseen for the next meeting.

5.2. Public Consultation on the Draft Scientific Committee guidance on the assessment of aneugenicity

The WG Genotoxicity started discussion and addressing of the received comments from the Public Consultation on the draft guidance on aneugenicity assessment⁵. Discussion and addressing of the received comments will continue in the next meetings.

6. Next meetings 2020 (tele-conferences)

- 20 July
- 14-15 September
- 2 October
- 19 October
- 9 or 10 November

² http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf

³ http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf

⁴ <http://www.efsa.europa.eu/sites/default/files/wqs/cross-cutting-science/genotoxicity20182021.pdf>

⁵ <https://www.efsa.europa.eu/en/consultations/call/public-consultation-draft-scientific-committee-guidance-assessment>



SCIENTIFIC COMMITTEE

MINUTES OF THE 21st MEETING OF THE WORKING GROUP ON GENOTOXICITY

Tele-conference, 18-19 June 2020

(Agreed on 6 July 2020)

This meeting, originally scheduled as a physical meeting, was converted into a tele-conference to avoid travelling to EFSA in line with the measures established to reduce the risk of coronavirus infection.

Participants

■ Working Group Members:

Diane Benford, Gabriele Aquilina, Margherita Bignami, Claudia Bolognesi, Riccardo Crebelli, Rainer Gürtler, Francesca Marcon, Elsa Nielsen, and Christiane Vleminckx.

■ EFSA:

SCER Unit: Christina Kyrkou; Reinhilde Schoonjans (for subsection 5.2); Rositsa Serafimova; Jose Vicente Tarazona (for subsection 5.2)

PREV Unit: Juan Manuel Parra Morte

NUTRI Unit: Annamaria Rossi

FIP Unit: Maria Carfi; Esraa Elewa; Ndip Galvin Eyong, Ana Maria Rincon, and Camilla Smeraldi (for subsection 5.2); Ellen Van Haver (for subsection 5.1)

■ Hearing experts¹:

Shareen Doak (for subsection 5.2, only on day 2)

1. Welcome and apologies for absence

Apologies were received from Josef Schlatter.

¹ As defined in Article 17 of the Decision of the Executive Director concerning the selection of members of the Scientific Committee, the Scientific Panels, and the selection of external experts to assist EFSA with its scientific work:
<http://www.efsa.europa.eu/en/keydocs/docs/expertselection.pdf>.

2. Adoption of agenda

The agenda was adopted without changes.

3. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence² and the Decision of the Executive Director on Competing Interest Management³, EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

4. Agreement of the minutes of the 20th Working Group meeting held on 29 May 2020, Parma.

The minutes of the 20th Working Group meeting held on 29 May 2020 were agreed on 16 June 2020.⁴

5. Scientific topics for discussion

5.1. Request for advice from the Food Ingredients and Packaging (FIP) Unit on styrene (FCM No 193) (M-2019-0195)

The scientific opinion on risk assessment of styrene (where the technical report of the genotoxicity evaluation of styrene provided by the Working Group (WG) Genotoxicity was included) was discussed during the 14th Plenary meeting of the Panel on Food Contact Materials, Enzymes and Processing Aids (CEP)⁴. Based on the feedback from the discussion during the Plenary meeting related to genotoxicity evaluation of styrene, the technical report was slightly revised and communicated to the WG Genotoxicity. No further request to the WG was made at this stage of the assessment.

5.2. Request for advice from the FIP Unit on titanium dioxide (E 171) (M-2020-0058)

The hearing expert Shareen Doak was invited to present to the WG her knowledge and experience on the nano-specific criteria to be used for appraisal of *in vitro* and *in vivo* genotoxicity studies retrieved from the literature. The hearing expert comprehensively replied to the questions put to her from the WG Genotoxicity after the presentation. Acceptability and evaluation criteria used for genotoxicity studies specific for nano-TiO₂ reported in the publication of Charles, S., et al., 2018⁵ were also discussed within the WG. The implementation in the area of food additives of the evaluation of reliability and relevance of the genotoxicity studies (as foreseen in the EFSA genotoxicity testing strategy⁶) was presented and discussed. *OHAT Risk of bias rating tool for human and animal studies* was presented together with some nano-specific aspects to be considered. The consideration on quality criteria needs to be adapted to reflect the peculiarities of the genotoxicity assessment of nanomaterials. A few selected publications will be used for testing the applicability of the appraisal criteria and the results of this testing phase will be discussed during the next WG meeting.

² http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf

³ http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf

⁴ <http://www.efsa.europa.eu/sites/default/files/wqs/cross-cutting-science/genotoxicity20182021.pdf>

⁴ <https://www.efsa.europa.eu/sites/default/files/event/2020/14th-plenary-meeting-cep-panel-minutes.pdf>

⁵ <https://doi.org/10.1080/17435390.2018.1451567>

⁶ EFSA Scientific Committee, 2011. Scientific opinion on genotoxicity testing strategies applicable to food and feed safety assessment. EFSA Journal 2011;9(9):2379, 69 pp, doi:10.2903/j.efsa.2011.2379.

⁷ <https://www.efsa.europa.eu/en/consultations/call/public-consultation-draft-scientific-committee-guidance-assessment>

5.3. Public Consultation on the Draft Scientific Committee guidance on the assessment of aneugenicity

The Public Consultation on the draft guidance on aneugenicity assessment⁷, launched on the 30th of March, ended on the 31st of May. The WG Genotoxicity was informed on the received comments. The following steps and the respective deadlines were discussed. The first round of discussions is scheduled for the next meeting.

6. Next meetings 2020 (tele-conferences)

- 9-10 July
- 20 July
- 14-15 September
- 19 October
- 9-10 November



SCIENTIFIC COMMITTEE

MINUTES OF THE 20TH MEETING OF THE WORKING GROUP ON GENOTOXICITY

Tele-conference, 29 May 2020

(Agreed on 17 June 2020)

Participants

- Working Group Members:
Diane Benford, Gabriele Aquilina, Margherita Bignami, Claudia Bolognesi, Riccardo Crebelli, Rainer Gürtler, Francesca Marcon, Elsa Nielsen, Josef Schlatter and Christiane Vleminckx.
- EFSA:
SCER Unit: Christina Kyrkou; Reinhilde Schoonjans (for subsection 5.2)
PREV Unit: Rositsa Serafimova
FIP Unit: Maria Carfì; Esraa Elewa; Ana Maria Rincon and Camilla Smeraldi (for subsection 5.2);
Ellen Van Haver (for subsection 5.1)

1. Welcome and apologies for absence

No apologies were received.

2. Adoption of agenda

The agenda was adopted without changes.

3. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence¹ and the Decision of the Executive Director on Competing Interest Management², EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

¹ http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf

² http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf

4. Agreement of the minutes of the 19th Working Group meeting held on 18 May 2020, Parma.

The minutes of the 19th Working Group meeting held on 18 May 2020 were agreed on 5 June 2020.³

5. Scientific topics for discussion

5.1. Request for advice from the Food Ingredients and Packaging (FIP) Unit on styrene (FCM No 193) (M-2019-0195)

The Working Group (WG) Genotoxicity was informed that the Food Contact Materials working group discussed on the genotoxicity evaluation of styrene considering the technical report provided by the WG Genotoxicity. No further clarifications were requested. The scientific opinion on risk assessment of styrene is scheduled for discussion during the next Plenary meeting of the Panel on Food Contact Materials, Enzymes and Processing Aids (CEP). A feedback from these discussions related with genotoxicity evaluation of styrene will be provided to WG Genotoxicity during the next meeting.

5.2. Request for advice from the FIP Unit on titanium dioxide (E 171) (M-2020-0058)

The WG Genotoxicity received from the FIP Unit the new evidence on genotoxicity relevant for the assessment of TiO₂ (E171) (publications covering the last 5 years). The FIP Unit presented the approach followed in the systematic literature search including inclusion/exclusion criteria set on the basis of an advice of the cross-cutting working group Nanotechnologies. Further activities related with genotoxicity evaluation of TiO₂ (E171), templates to be used to record this evaluation and timelines were discussed. It was recognised that there is need for establishment of criteria to be followed in the evaluation of the available publications/studies. Further discussion on the criteria as well as the distribution of the tasks among the Genotoxicity WG members are scheduled for the next meeting.

6. Next meetings 2020 (tele-conferences)

- 18-19 June
- 9-10 July
- 20 July
- 25 August
- 14-15 September
- 19 October
- 9-10 November
- 4 December

³ <http://www.efsa.europa.eu/sites/default/files/wgs/cross-cutting-science/genotoxicity20182021.pdf>



SCIENTIFIC COMMITTEE

MINUTES OF THE 19TH MEETING OF THE WORKING GROUP ON GENOTOXICITY

Tele-conference, 18 May 2020

(Agreed on 05 June 2020)

This meeting, originally scheduled as a physical meeting, was converted into a teleconference to avoid traveling to EFSA in line with the measures established to reduce the risk of coronavirus infection.

Participants

- Working Group Members:

Diane Benford, Gabriele Aquilina, Margherita Bignami, Claudia Bolognesi, Riccardo Crebelli, Rainer Gürtler, Francesca Marcon, Elsa Nielsen, Josef Schlatter and Christiane Vleminckx.

- EFSA:

SCER Unit: Christina Kyrkou; Reinhilde Schoonjans (for subsection 5.1)

PREV Unit: Arianna Chiusolo and Federica Crivellente (for subsection 5.3); Rositsa Serafimova

FEED Unit: Paola Manini

FIP Unit: Maria Carfi; Esraa Elewa; Ana Maria Rincon and Camilla Smeraldi (for subsection 5.1); Ellen Van Haver (for subsection 5.2)

NUTRI Unit: Annamaria Rossi (for subsection 5.1)

- Hearing Experts¹:

Shareen Doak (for part of the subsection 5.1)

1. Welcome and apologies for absence

No apologies were received.

¹ As defined in Article 17 of the Decision of the Executive Director concerning the selection of members of the Scientific Committee, the Scientific Panels, and the selection of external experts to assist EFSA with its scientific work:
<http://www.efsa.europa.eu/en/keydocs/docs/expertselection.pdf>.

2. Adoption of agenda

The agenda was adopted without changes.

3. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence² and the Decision of the Executive Director on Competing Interest Management³, EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

4. Agreement of the minutes of the 18th Working Group meeting held on 7 May 2020, Parma.

The minutes of the 18th Working Group meeting held on 7 May 2020 were agreed on 25 May 2020.⁴

5. Scientific topics for discussion

5.1. Request for advice from the Food Ingredients and Packaging (FIP) Unit on titanium dioxide E 171 (TiO₂) (M-2020-0058)

The Working Group (WG) Genotoxicity has been informed during the 17th meeting about a new request for support from the FIP Unit on the assessment of titanium dioxide E 171 (TiO₂) as a food additive. During the current meeting, the FIP Unit presented the European Commission (EC) mandate (M-2020-0058), the activities related with the mandate and the relevant deadlines. The request and the involvement of the WG Genotoxicity were clarified. In particular, the request includes support in the appraisal and evaluation of the new evidence (publications from the last 5 years) on genotoxicity of TiO₂, considering the new proposed EU specification of the food additive, which includes a fraction of nanoparticles (less than 50% of constituent particles by number are particles with a minimum external dimension below 100 nm).

Shareen Doak, was invited to the meeting as a hearing expert in order to present issues related to the assessment of genotoxicity of nanomaterials and reply to the questions of the WG members following the presentation.

The WG Genotoxicity is now expecting to receive the new evidence retrieved from a literature search in order to start their assessment. Further discussions related to this request are scheduled for the next meeting.

5.2. Request for advice from the FIP Unit on styrene (FCM No 193) (M-2019-0195)

The draft technical report summarising genotoxicity assessment of styrene was finalized. The technical report was provided to the FIP Unit to be considered by the Food Contact Materials (FCM) working group during the preparation of the scientific opinion addressing the EC mandate. If further clarifications are needed on the genotoxicity assessment, the WG Genotoxicity will be consulted.

5.3. Request for advice from the Pesticides Peer-Review (PREV) Unit on 3,5,6-trichloro-2-pyridinol (3,5,6-TCP)

² http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf

³ http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf

⁴ <http://www.efsa.europa.eu/sites/default/files/wgs/cross-cutting-science/genotoxicity20182021.pdf>

The WG proceeded to a last discussion and finalisation of the evaluation on bone marrow exposure of 3,5,6-TCP. The final evaluation was provided to the PREV Unit.

6. Other business

A feedback from the OECD annual meeting of national coordinators of test guideline programme on issues related with genotoxicity was provided by Gabriele Aquilina.

7. Next meetings (tele-conferences)

- 29 May
- 18-19 June
- 9-10 July
- 20 July
- 25 August
- 14-15 September
- 19 October
- 9-10 November
- 4 December



SCIENTIFIC COMMITTEE

MINUTES OF THE 18TH MEETING OF THE WORKING GROUP ON GENOTOXICITY

Tele-conference, 7 May 2020

(Agreed on 25 May 2020)

This meeting, originally scheduled as a physical meeting, was converted into a tele-conference to avoid travelling to EFSA in line with the measures established to reduce the risk of coronavirus infection.

Participants

- Working Group Members:
Diane Benford, Gabriele Aquilina, Margherita Bignami, Claudia Bolognesi, Riccardo Crebelli, Rainer Gürtler, Francesca Marcon¹, Elsa Nielsen, Josef Schlatter and Christiane Vleminckx.
- EFSA:
SCER Unit: Daniela Maurici; Christina Kyrkou
PREV Unit: Rositsa Serafimova
FEED Unit: Paola Manini
FIP Unit: Maria Carfì; Ellen Van Haver

1. Welcome and apologies for absence

No apologies were received.

2. Adoption of agenda

The agenda was adopted without changes.

¹Present at the first half of the meeting

3. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence² and the Decision of the Executive Director on Competing Interest Management³, EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

4. Agreement of the minutes of the 17th Working Group meeting held on 15-16 April 2020, Parma.

The minutes of the 17th Working Group meeting held on 15-16 April 2020 were agreed on 7 May 2020.⁴

5. Scientific topics for discussion

5.1. Follow-up on the request for advice from the Food Ingredients and Packaging (FIP) Unit on "styrene (FCM No 193)"

The genotoxicity assessment provided by the Industry as part of the Technical dossier was extensively discussed during the current meeting. The discussions and WG evaluation were included in the draft technical report summarising genotoxicity assessment of styrene. Finalisation of the draft technical report is scheduled for the next meeting.

6. Next meetings (tele-conferences)

- 18 May
- 29 May
- 18-19 June
- 9-10 July
- 20 July
- 25 August
- 14-15 September
- 19 October
- 9-10 November
- 4 December

² http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf

³ http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf

⁴ <http://www.efsa.europa.eu/sites/default/files/wqs/cross-cutting-science/genotoxicity20182021.pdf>



SCIENTIFIC COMMITTEE

MINUTES OF THE 17TH MEETING OF THE WORKING GROUP ON GENOTOXICITY

Tele-conference, 15-16 April 2020

(Agreed on 7 May 2020)

Participants

- Working Group Members:

Diane Benford, Gabriele Aquilina, Margherita Bignami, Claudia Bolognesi, Tamara Coja¹, Riccardo Crebelli, Rainer Gürtler, Francesca Marcon, Elsa Nielsen, Josef Schlatter and Christiane Vleminckx.

- EFSA:

SCER Unit: Daniela Maurici; Christina Kyrkou

PREV Unit: Arianna Chiusolo and Federica Crivellente (for subsection 5.1 and 5.2); Rositsa Serafimova

FEED Unit: Paola Manini; Fabiola Pizzo (for subsection 5.4)

FIP Unit: Maria Carfi; Anna Castoldi and Ellen Van Haver (for subsection 5.3)

NUTRI Unit: Annamaria Rossi (for subsection 5.4)

1. Welcome and apologies for absence

No apologies were received.

2. Adoption of agenda

The agenda was adopted without changes.

3. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence² and the Decision of the Executive Director on Competing Interest Management³, EFSA screened the Annual Declarations of Interest filled out by the

¹Only for subsection 5.1 and 5.2

² http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf

³ http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf

Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

4. Agreement of the minutes of the 16th Working Group meeting held on 19-20 March 2020, Parma.

The minutes of the 16th Working Group meeting held on 19-20 March 2020 were agreed on 8 April 2020.⁴

5. Scientific topics for discussion

5.1. Discussion on request for advice from the Panel on Plant Protection Products and their Residues (PPR) on *Pseudomonas chlororaphis* MA342

The WG continued the discussion on the requested support in relation to the European Commission (EC) mandate M-2020-0021 for the evaluation of the genotoxic (aneugenic) potential of 2,3-deepoxy-2,3-didehydro-rhizoxin (DDR), a metabolite produced by *Pseudomonas chlororaphis* MA342.

After in depth discussion on the critical points and clarification on some questions raised during the meeting, the WG considers the request for advice concluded. A draft will be provided to the *P.chlororaphis* WG that will be further elaborated before being presented to the PPR Panel. The PPR Panel may return to the WG if any further support or clarification is needed.

5.2. Discussion on request for advice from the Pesticides Peer-Review (PREV) Unit on 3,5,6-trichloro-2-pyridinol

Following the discussion held in the previous WG meeting a draft text evaluating the studies provided by the PREV Unit was prepared and presented to the WG. The WG proceeded to an in-depth discussion on the critical points identified. Additional information was requested by the WG and will be provided by the PREV Unit after the current meeting. This will help the WG to finalise the evaluation, which will be discussed in one of the next meetings.

5.3. Continuation of discussion on the request for advice from the Food Ingredients and Packaging (FIP) Unit on “styrene (FCM No 193)”

As a continuation of the last discussion on styrene in the 16th WG meeting (EC mandate M-2019-0195), the WG proceeded to the identification of the critical points for discussion and further analysis of the documents and data available. In addition, a report to summarise the preliminary assessment was drafted and discussed by the WG. Further discussion on all points will continue in the next WG meetings.

5.4. Finalisation on the request for advice from the Panel on Additives and Products or Substances used in Animal Feed (FEEDAP) on curcumin (M-2010-0473)

Considering the evaluation by the WG with regards to the request for support on the genotoxic potential of curcumin as a feed additive, the FEEDAP WG on flavourings came back to share the incorporation of this evaluation to their output. This was discussed and the work of the WG on this item is now completed.

6. Other business

⁴ <http://www.efsa.europa.eu/sites/default/files/wgs/cross-cutting-science/genotoxicity20182021.pdf>

This meeting, originally scheduled as a physical meeting, was converted into a tele-conference to avoid traveling to EFSA in line with the measures established to reduce the risk of COVID-19 infection. For the same reason, the WG was informed that all the WG meetings scheduled until the end of August 2020 will be held as tele-conferences.

A new request for support from the Unit of Food Packaging and Ingredients (FIP) on the evaluation of titanium dioxide (TiO₂) as food additive has been shortly presented to the WG while more information will follow in the next meetings. With regards to the new upcoming request, the need for additional expertise in the area of genotoxicity of nanomaterials has been identified. The WG will be probably enlarged with additional members having this expertise.

7. Next meetings (tele-conferences)

- 7 May
- 18 May
- 29 May
- 18-19 June
- 9-10 July
- 20 July
- 25 August



SCIENTIFIC COMMITTEE

MINUTES OF THE 16TH MEETING OF THE WORKING GROUP ON GENOTOXICITY

Tele-conference, 19-20 March 2020

(Agreed on 8 April 2020)

Participants

■ Working Group Members:

Gabriele Aquilina, Margherita Bignami, Claudia Bolognesi, Tamara Coja¹, Riccardo Crebelli², Rainer Gürtler, Francesca Marcon, Elsa Nielsen and Josef Schlatter.

■ EFSA:

SCER Unit: Daniela Maurici, Christina Kyrkou

PREV Unit: Arianna Chiusolo and Federica Crivellente (for subsection 5.2 and 5.3), Rositsa Serafimova

FEED Unit: Paola Manini (for subsection 5.2)

FIP Unit: Maria Carfì, Anna Castoldi (for subsection 5.1), Ellen Van Haver (for subsection 5.1)

NUTRI Unit: Annamaria Rossi (for subsection 5.2)

■ Observers:

Frank Le Curieux (ECHA) (for subsection 5.1)

1. Welcome and apologies for absence

Apologies were received from Diane Benford (Working Group Chair) and Christiane Vleminckx.

2. Adoption of agenda

The agenda was adopted without changes.

¹Only day 2

²Only day 1

3. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence³ and the Decision of the Executive Director on Competing Interest Management⁴, EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

4. Agreement of the minutes of the 15th Working Group meeting held on 20-21 January 2020, Parma.

The minutes of the 15th Working Group meeting held on 20-21 January 2020 were agreed on 10 February 2020.⁵

5. Scientific topics for discussion

5.1. Discussion on the request for advice from the Food Ingredients and Packaging (FIP) Unit on "styrene (FCM No 193)"

The FIP Unit has requested the support of the cross-cutting working group on genotoxicity (WG) on the evaluation of genotoxicity of styrene via oral exposure in relation to the European Commission (EC) mandate (M-2019-0195). The mandate has been presented and preliminary discussion has been done during the 12th WG meeting (4-5 November 2019).

During the current meeting, the FIP Unit presented the approach for addressing the mandate received from the EC, clarified the deadlines and the activities planned including the output needed from the WG. A preliminary critical review on the available data (e.g. IARC Monograph, EU Risk assessment report) were presented and discussed by the WG. ECHA representative presented an overview of the publically available evaluation of styrene within the legislative framework of ECHA. The WG will further discuss on the topic at the next WG meeting. It is intended to prepare a report to summarise the preliminary assessment by the WG.

5.2. Follow-up on the request for advice from the Panel on Additives and Products or Substances used in Animal Feed (FEEDAP) on curcumin (M-2010-0473)

In September 2019, the FEEDAP WG on flavourings has requested from the WG on genotoxicity advice on the genotoxic potential of curcumin as a feed additive. After considering the last advice received from the WG in November 2019, the FEEDAP WG prepared and shared the final draft opinion, including toxicological, absorption-distribution-metabolism-excretion (ADME) and mode of action data, where the "Genotoxicity & Carcinogenicity" chapter needed to be reviewed. Following the discussion, a final evaluation of the WG will be reported to the FEEDAP WG on flavourings to draw the final conclusions.

5.3. New request for advice from the Panel on Plant Protection Products and their Residues (PPR) on *Pseudomonas chlororaphis* MA342

The PPR Working Group on *Pseudomonas chlororaphis* requested support in relation to the EC mandate (M-2020-0021) on the evaluation of the genotoxic (aneugenic) potential of 2,3-deepoxy-2,3-didehydro-rhizoxin (DDR), a metabolite produced by *P. chlororaphis* MA342, a microorganism used as a fungicide for seed treatment.

The WG was introduced to the EC mandate on *P. chlororaphis* MA342, where the terms of reference and the request for advice on the genotoxic potential and risk to public health of the metabolite DDR

³ http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf

⁴ http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf

⁵ <http://www.efsa.europa.eu/sites/default/files/wgs/cross-cutting-science/genotoxicity20182021.pdf>

were presented. The WG discussed on the request and the available studies. The critical points for discussions were identified and scheduled for further discussion in the next WG meetings.

5.4. New request for advice from the Pesticides Peer-Review (PREV) Unit on 3,5,6-trichloro-2-pyridinol

The PREV Unit requested the support of the WG on the evaluation of the genotoxic potential of 3,5,6-trichloro-2-pyridinol (3,5,6-TCP), a common metabolite of the pesticides chlorpyrifos, chlorpyrifos-methyl and triclopyr. The PREV Unit presented the available studies and the evaluation done so far within the peer review process of the risk assessment of the three pesticides. The WG discussed on the request and the available studies. The critical points were identified and scheduled for further discussion in the next WG meeting.

6. Other business

The WG was informed that, due to the COVID-19 crisis, all the WG meetings scheduled until the end of May 2020 will be held as tele-conferences.

7. Next meetings

- 15-16 April (tele-conference)
- 7 May (tele-conference)
- 18 May (tele-conference)
- 29 May (tele-conference)
- 18-19 June (physical meeting/tele-conference, TBC*)
- 9-10 July (physical meeting/tele-conference, TBC*)
- 20 July (tele-conference)
- 25 August (tele-conference)

*to be confirmed



SCIENTIFIC COMMITTEE

MINUTES OF THE 15TH MEETING OF THE cross cutting WORKING GROUP ON GENOTOXICITY

Held on 20-21 January 2020, EFSA Italy

(Agreed on 10 February 2020)

Participants

■ Working Group Members:

Diane Benford, Gabriele Aquilina, Margherita Bignami, Claudia Bolognesi, Riccardo Crebelli, Rainer Gürtler, Francesca Marcon, Elsa Nielsen, Josef Schlatter and Christiane Vleminckx*.

■ EFSA:

SCER Unit: Daniela Maurici

FIP Unit: Maria Carfi, Carla Martino, Esraa Elewa

NUTRI Unit: Annamaria Rossi

PREV: Juan Parra Morte

■ Observers:

Frank Le Curieux (ECHA), only for the agenda point on aneugenicity

1. Welcome and apologies for absence

No apologies were received.

Adoption of agenda

The agenda was adopted without changes.

Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence¹ and the Decision of the Executive Director on Competing Interest Management², EFSA screened the Annual Declarations of Interest filled out by the

¹ http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf

² http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf

Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

2. Draft report on triazine amine

A revised version of the text has been discussed at this meeting and finally agreed. The draft opinion will be shared with the PPR panel for possible presentation at the Panel plenary for final adoption.

3. Draft guidance on aneugenicity assessment

The chapter on risk characterisation of substances that are aneugenic but not clastogenic was discussed together with the chapter on risk assessment for combined exposure to multiple aneugens. The conclusions were discussed and agreed.

The draft is considered ready to be presented at the upcoming 97th Scientific Committee meeting in February 2020 for discussion and possible endorsement for public consultation. If endorsed, public consultation will be launched in March 2020 for a period of 6-8 weeks.

4. EHC 240, SUBCHAPTER 4.5. Genotoxicity Draft

The revision of the "EHC240: Principles and Methods for the Risk Assessment of Chemicals in Food" is ongoing. The chapter on genotoxicity has been published for public consultation and the consultation closes on 31 January. As there was no time at this meeting for a detailed discussion, the experts were requested to submit comments directly at the link on the WHO website.

4. Any Other Business

The request from the FIP Unit on the genotoxicity assessment of styrene (following an EC mandate) is still on hold, pending clarification with the Commission on the terms of reference.

Two new requests from the PREV unit will be probably shortly sent to the SC secretariat. More information will be available at the next meetings.

Next meetings in 2020

- 19-20 March 2020, Parma
- 15-16 April 2020 (placeholder for teleconference)
- 7-8 May 2020, Parma
- 18 May 2020 placeholder for teleconference



SCIENTIFIC COMMITTEE AND EMERGING RISKS UNIT

SCIENTIFIC COMMITTEE

MINUTES OF THE 14TH MEETING OF THE cross cutting WORKING GROUP ON GENOTOXICITY

As Teleconference

Held on 7 January 2020

(Agreed on 13 January 2020)

Participants

■ Working Group Members:

Diane Benford, Gabriele Aquilina, Margherita Bignami, Claudia Bolognesi, Rainer Gürtler, Francesca Marcon, Elsa Nielsen, Josef Schlatter and Christiane Vleminckx.

■ EFSA:

SCER Unit: Daniela Maurici

FIP Unit: Maria Carfi, Carla Martino, Esraa Elewa

NUTRI Unit: Annamaria Rossi

PREV: Juan Parra Morte

■ Observers:

Frank Le Curieux (ECHA), only for the agenda point on aneugenicity

1. Welcome and apologies for absence

Apologies were received from Riccardo Crebelli.

Adoption of agenda

The agenda was adopted without changes.

Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence¹ and the Decision of the Executive Director on Competing Interest Management², EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

2. Draft report on triazine amine

The PPR panel discussed the draft report on the genotoxicity assessment of triazine amine (as prepared by the WG genotoxicity) in its plenary meeting in October and some comments were made that were presented to the WG. The WG addressed the comments in its teleconference on the 6th December 2019 and agreed to revise the text to make it more clear. A revised version of the text has been discussed at this meeting but some unclarity remains that will be further discussed in the physical meeting on the 20-21 January 2020.

3. Draft guidance on aneugenicity assessment

The chapter on hazard characterisation of substances that are aneugenic but not clastogenic was briefly discussed. The discussion focused in particular on the situation of data poor substances that have been found positive for aneugenicity in vitro. The WG agreed to share the present draft of the guidance with the WG Flavouring, meeting next week to seek for comments that will be then shared and discussed with the WG Gentox at its next meeting, on 20-21 January 2020.

The draft guidance, if finalised, should be presented at the Scientific Committee meeting in February 2020 for discussion and possible endorsement for public consultation.

4. Any Other Business

The request from the FIP Unit on the genotoxicity assessment of styrene (following an EC mandate) is still on hold, pending clarification with the Commission on the terms of reference.

Two new requests from the PREV unit will be probably shortly sent to the SC secretariat. More information will be available at the next meetings.

Next meetings in 2020

- 20-21 January 2020, Parma
- 19-20 March 2020, Parma
- 15-16 April 2020 (placeholder for teleconference)
- 7-8 May 2020, Parma
- 18 May 2020 placeholder for teleconference

¹ http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf

² http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf



SCIENTIFIC COMMITTEE

MINUTES OF THE 13TH MEETING OF THE cross cutting WORKING GROUP ON GENOTOXICITY

As Teleconference

Held on 6 December 2019

(Agreed on 16 December 2019)

Participants

■ Working Group Members:

Diane Benford, Gabriele Aquilina, Margherita Bignami, Claudia Bolognesi, Riccardo Crebelli, Rainer Gürtler, Elsa Nielsen, Christiane Vleminckx.

■ EFSA:

SCER Unit: Daniela Maurici

FIP Unit: Maria Carfi, Esraa Elewa

NUTRI Unit: Annamaria Rossi

PREV: Juan Parra Morte

1. Welcome and apologies for absence

Apologies were received from Francesca Marcon and Josef Schlatter.

Adoption of agenda

The agenda was adopted without changes.

Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence¹ and the Decision of the Executive Director on Competing Interest Management², EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues

¹ http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf

² http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf

discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

2. Draft report on triazine amine

The PPR panel discussed the draft report on the genotoxicity assessment of triazine (as prepared by the WG genotoxicity) in its plenary meeting in October and some comments were made that were presented to the WG. The WG addressed the comments and agreed to revise the text to make it more clear. A revised version of the text will be discussed in January 2020 and, once agreed, sent to the PPR panel.

3. Draft guidance on aneugenicity assessment

The revised draft guidance was discussed and reviewed. The revision includes amendments in the chapter of “*In vivo* follow up of *in vitro* aneugens”, and on the chapter “Hazard characterisation for substances that are aneugenic but not clastogenic”.

The WG was also presented with the comments from the Scientific Committee (SC) as expressed during the presentation given at the plenary meeting on 4th December.

The WG will discuss a revised draft in January 2020. The document should be presented at the Scientific Committee meeting scheduled for February 2020 for possible endorsement for public consultation.

4. Any Other Business

The request from the FIP Unit on the genotoxicity assessment of styrene (following EC mandate) has been put on hold, pending clarification with the Commission on the terms of reference.

Two new requests from the PREV unit will be probably shortly sent to the SC secretariat. More information will be available at the next meetings.

Next meetings in 2020

- 7 January 2020, 9.00-13.00 teleconference
- 20-21 January 2020, Parma
- 19-20 March 2020, Parma
- 15-16 April 2020 (placeholder for teleconference)
- 7-8 May 2020, Parma
- 18 May 2020 placeholder for teleconference



SCIENTIFIC COMMITTEE

MINUTES OF THE 12TH MEETING OF THE cross cutting WORKING GROUP ON GENOTOXICITY

Held on 5-6 November 2019 in Parma, Italy

(Agreed on 26 November 2019)

Participants

- Working Group Members:
Diane Benford, Gabriele Aquilina, Margherita Bignami, Claudia Bolognesi, Rainer Gürtler, Francesca Marcon, Elsa Nielsen, Josef Schlatter, Christiane Vleminckx.
- EFSA:
SCER Unit: Daniela Maurici
FEED Unit: Paola Manini (day 2)
FIP Unit: Maria Carfi, Carla Martino; Ellen van Haver (only for agenda item 5)
NUTRI Unit: Annamaria Rossi
- Hearing expert:
David Kirkland (9.00-11.00 of the second day)

1. Welcome and apologies for absence

Apologies were received from Riccardo Crebelli.

Adoption of agenda

The agenda was adopted without changes.

Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence¹ and the Decision of the Executive Director on Competing Interest Management², EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

2. Agreement of the web minutes of the last meetings

The WG discussed and agreed on the content of the minutes of the last 2 meetings. The web minutes will be published soon.

3. Draft guidance on aneugenicity assessment

The revised draft guidance was discussed and reviewed.

The hearing expert was asked to present his views and data on several issues related to aneugenicity assessment such as: current status of the validation of the liver micronucleus test; how to interpret the positive results of aneuploidy in the liver considering the polyploidy observed in liver cells; in vivo assessment of aneugenicity of substances not requiring metabolic activation; current status of validation of micronucleus test in the gastro-intestinal tract. The WG thanked the hearing expert for having provided his view on relevant topics related to aneugenicity assessment.

The WG agreed to postpone the presentation of the draft guidance for possible endorsement for public consultation until the Scientific Committee meeting scheduled for February 2020. Public consultation will probably be launched in early spring. Given this background, the finalisation of the guidance is now foreseen for June 2020.

4. New request from the FIP Unit on styrene

The FIP Unit received a mandate from the Commission for the re-evaluation of the safety of styrene as food contact material (M-2019-0195) in the light of the new information that became available after the publication of the IARC monograph.

The FIP Unit would like to request to the WG to evaluate the possible genotoxicity of styrene via oral exposure. The WG discussed the mandate and the request from the FIP unit and agreed that a clarification of the terms of reference is needed before accepting the task. Styrene exhibits well known genotoxicity via inhalation, but very few data related specifically to oral exposure are available. The WG will discuss again possible collaborations with the FIP Unit on this substance once the terms or reference and the timelines have been clarified and agreed with the Commission.

5. New request from the PREV Unit on thiophanate-methyl

Due to time constraint, the discussion on this topic was postponed to the next meeting.

6. Any Other Business

¹ http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf

² http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf

Update on curcumin

The FEEDAP Panel requested an advice from the WG on the genotoxicity of curcumin as a feed additive. The WG provided a preliminary evaluation of the available genotoxicity studies during the September meeting.

The FEEDAP Panel considered the advice received and is at present in the process of evaluating other relevant information (e.g. tox data, ADME data, mode of action...). The Panel is going to have a final draft opinion ready to be shared with the WG for comments in the beginning of 2020.

Next meetings

- 6th December 2019, 9.00-13.00 teleconference
- 7 January 2020, 9.00-13.00 teleconference
- 20-21 January 2020, Parma
- 19-20 March 2020, Parma
- 15-16 April 2020 (placeholder for teleconference)
- 7-8 May 2020, Parma
- 18 May 2020 placeholder for teleconference



SCIENTIFIC COMMITTEE

MINUTES OF THE 11TH MEETING OF THE cross cutting WORKING GROUP ON GENOTOXICITY

Held via teleconference on 18th October (9.00-13.00)

(Agreed on 31 October 2019)

Participants

■ Working Group Members:

Diane Benford, Gabriele Aquilina, Margherita Bignami, Claudia Bolognesi, Riccardo Crebelli, Rainer Gürtler, Francesca Marcon, Elsa Nielsen, Josef Schlatter, Christiane Vleminckx.

■ EFSA:

SCER Unit: Daniela Maurici

PREV Unit: Juan Parra Morte

FEED Unit: Paola Manini

FIP Unit: Maria Carfi, Carla Martino

NUTRI Unit: Annamaria Rossi

1. Welcome and apologies for absence

2. Adoption of agenda

The agenda was adopted without changes.

3. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence¹ and the Decision of the Executive Director on Competing Interest Management², EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

¹ http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf

² http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf

4. Scientific topics for discussion

4.1. Draft guidance on aneugenicity assessment

The draft revised guidance was discussed and reviewed. The WG focussed on specific aspects. Some amendments were proposed and will be discussed together with the revised draft at the next WG meeting scheduled for 5-6 November in Parma.

The plan is to submit the final draft guidance at the Scientific Committee plenary meeting in December for possible endorsement for public consultation.

4.2. Feedback from the Plant Protection Products (PPR) panel on the discussion in the October plenary on EC mandate on triazine amine genotoxicity assessment

The final draft opinion was tabled at the PPR plenary in October. The panel had few questions for the WG that were briefly discussed and the text was amended accordingly. The draft opinion is scheduled for adoption at the November PPR panel plenary meeting.

5. Any Other Business

The WG was informed about the possibility to receive a request for advice from the FIP Unit in relation to the genotoxicity assessment of styrene, following an EC mandate.

The WG was also informed about a new request from the PREV Unit on thiophanate-methyl.

IN both cases, more information will be available at the next meeting.

6. Next meetings

Meeting dates for 2020 will be discussed and agreed at the next meeting

- 5-6 November 2019: Meeting in Parma
- 6th December 2019, 9.00-13.00 teleconference



SCIENTIFIC COMMITTEE

MINUTES OF THE 10TH MEETING OF THE cross cutting WORKING GROUP ON GENOTOXICITY

EFSA, Parma (IT), 26-27 September 2019

(Agreed on 5 November 2019)

Participants

■ Working Group Members:

Diane Benford (chair), Gabriele Aquilina, Margherita Bignami, Claudia Bolognesi, Riccardo Crebelli, Rainer Gürtler, Francesca Marcon, Elsa Nielsen (only 1st day pm), Josef Schlatter, Christiane Vleminckx (only 1st day via teleconference).

■ Observers from other EU institutions:¹

Frank Le Curieux (ECHA): for agenda item 4.3

■ EFSA:

SCER Unit: Daniela Maurici

PREV Unit: Juan Parra Morte

FEED Unit: Paola Manini

FIP Unit: Maria Carfi, Carla Martino

NUTRI Unit: Annamaria Rossi

1. Welcome and apologies for absence

Apologies were received from Raffaella Corvi (observer JRC).

2. Adoption of agenda

The agenda was adopted without changes.

¹ <http://www.efsa.europa.eu/en/stakeholders/observers.html>

3. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence² and the Decision of the Executive Director on Competing Interest Management³, EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

4. Scientific topics for discussion

4.1. Request for an advice from the Nutrition unit on "Tongkat ali root extract"

The Nutrition unit asked for an advice on the testing of the novel food Tonkat ali root extract. This extract is a standardised water extract prepared from the dried ground root chips of "*Eurycoma longifolia*", a plant native in Southeast Asian countries.

The available data were presented and discussed by the WG who recommended some follow up studies to be requested to clarify the results obtained *in vitro*.

4.2. Draft guidance on risk assessment of nanosubstances – chapter "in vitro and in vivo genotoxicity testing"

The WG was presented with the request for comments and possible revision of the chapter "in vitro and in vivo genotoxicity testing" as part of the draft Guidance on risk assessment of the application of nanoscience and nanotechnologies in the food and feed chain (EFSA J.2018, link [here](#)). The draft guidance is at present under revision, incorporating the comments received after one year of piloting phase. The WG expressed the preference to have the scientific coordinator responsible for the nano guidance and at least one member of the nano WG attending the meeting, to answer specific questions. It has been therefore decided to postpone the discussion of this chapter to one of the next WG meetings.

The finalisation of the revision of the draft guidance on risk assessment of the application of nanoscience and nanotechnologies in the food and feed chain is expected by the end of 2020.

4.3. Draft guidance on aneugenicity assessment

The draft document was tabled for the first reading at the September plenary meeting of the Scientific Committee. The WG discussed the comments provided by the Scientific Committee and how to address them.

The draft guidance will be amended and discussed again in the teleconference scheduled for the 18th October. The plan is still to submit the final draft guidance at the Scientific Committee plenary meeting in December for possible endorsement for public consultation.

4.4. Request for advice from the panel of Feed Additives (FEEDAP) on curcumin

The available data on curcumin, summarised by FEED secretariat in the form of a table, were reviewed by the experts of the WG. The studies covered the different endpoints as gene mutation, chromosomal aberration *in vitro* and *in vivo*, Comet assay *in vitro* and *in vivo*, micronucleus test *in vitro* and *in vivo*, and other toxicity studies. The WG made preliminary conclusions for each endpoint. The overall evaluation of the WG will be reported to the FEEDAP WG on flavourings that is responsible to draw the final conclusions.

² http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf

³ http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf

5. Any Other Business

The FEED Unit asked the WG to advise on the genotoxicity data requirements in the context of the evaluation of new feed additives and the renewal of the authorisation of already permitted feed additives.

For applications for the use of new feed additives, the WG emphasised that the 2011 guidance on genotoxicity testing strategies (EFSA Journal) should be applied and that, accordingly, an in vitro micronucleus test should be provided in order to evaluate clastogenicity and aneugenicity.

For feed additives that are already on the market and that are subject to the renewal of their authorisation, the WG agreed to proceed on a case by case basis. In cases where a chromosomal aberration test but no in vitro micronucleus test was provided, the decision on whether the chromosomal aberration can be considered sufficient to evaluate aneugenicity may be drawn on a case-by-case basis.

Next meetings in 2019

- 18th October, 9.00-13.00 teleconference
- 5-6th November: Meeting in Parma
- 6th December, 9.00-13.00 teleconference



SCIENTIFIC COMMITTEE

MINUTES OF THE 9TH MEETING OF THE cross cutting WORKING GROUP ON GENOTOXICITY

Held as teleconference on 2nd September 2019, EFSA, Parma (IT)

(Agreed on 23 September 2019)

Participants

■ Working Group Members:

Diane Benford, Josef Schlatter (for agenda item 4.1 and 4.2), Gabriele Aquilina, Margherita Bignami, Claudia Bolognesi, Riccardo Crebelli, Rainer Gürtler, Francesca Marcon, Elsa Nielsen, Christiane Vleminckx.

■ Observers from other EU institutions:

Frank Le Curieux (ECHA): for agenda item 4.1

■ EFSA:

SCER Unit: Daniela Maurici

PREV Unit: Juan Parra Morte

FIP Unit: Carla Martino

NUTRI Unit: Annamaria Rossi

1. Welcome and apologies for absence

Apologies were received from Raffaella Corvi (observer JRC) and Tamara Coja.

2. Adoption of agenda

The agenda was adopted without changes.

3. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence¹ and the Decision of the Executive Director on Competing Interest Management², EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

4. Scientific topics for discussion

4.1. Draft guidance on aneugenicity assessment

The WG discussed a revised draft of the guidance on aneugenicity assessment. The draft guidance will be tabled at the upcoming 95th Scientific Committee plenary meeting on 12th September. Comments from the Scientific Committee will be reported at the next WG meeting where the guidance will be further updated. The plan is to table the final draft of the guidance at the Scientific Committee plenary meeting in December for possible endorsement for public consultation.

4.2. Request for an advice from the Plant Protection Products (PPR) panel on the EC mandate on triazine amine genotoxicity assessment (agenda item 3)

The revisions made to document EFSA/SC/2464 rev 8 were discussed. The final draft report will be sent to the PPR panel secretariat by mid September. The panel could discuss the draft report in its October plenary meeting.

4.3. Request for advice from the panel of Feed Additives (FEEDAP) on curcumin (agenda item 4)

The WG was presented with a table summarising the data available for the genotoxicity assessment of curcumin. Tasks were distributed to the members of the WG. The assessment will be discussed in the September meeting.

5. Any Other Business

The WG was informed that a new request has been received from the Nutrition unit on a novel foods extract. More information will be given at the next WG meeting.

6. Next meetings

- 26-27th September: Meeting in Parma
- 18th October, 9.00-13.00: Placeholder for teleconference
- 5-6th November: Meeting in Parma
- 6th December, 9.00-13.00: Placeholder for teleconference

¹ http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf

² http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf



SCIENTIFIC COMMITTEE

MINUTES OF THE 8TH MEETING OF THE cross cutting WORKING GROUP ON GENOTOXICITY

Held on 27-28 June 2019, EFSA, Parma (IT)

(Agreed on 17 July 2019)

Participants

■ Working Group Members:

Diane Benford (chair), Josef Schlatter, Gabriele Aquilina, Margherita Bignami, Claudia Bolognesi, Tamara Coja, Riccardo Crebelli, Rainer Gürtler*, Francesca Marcon, Elsa Nielsen, Christiane Vleminckx.

■ Hearing Experts¹:

Christina Tlustos, Food Safety Authority of Ireland; for agenda item 5.6.1

Uta Herbst, Bundesamt für Verbraucherschutz und Lebensmittelsicherheit (BVL); Roland Frötschl, Bundesinstitut für Arzneimittel und Medizinprodukte (BfArM); Bodo Haas, BfArM; all for agenda item 5.6.1

■ Observers from other EU institutions:

Frank Le Curieux (ECHA); for items 5.6

■ EFSA:

SCER Unit: Daniela Maurici, Jenny Maner

PREV Unit: Juan Parra Morte

FIP Unit: Maria Carfi, Carla Martino, Esraa Elewa

FEED Unit: Paola Manini (for agenda item 5), Fabiola Pizzo

NUTRI Unit: Annamaria Rossi

1. Welcome and apologies for absence

¹ As defined in Article 17 of the Decision of the Executive Director concerning the selection of members of the Scientific Committee, the Scientific Panels, and the selection of external experts to assist EFSA with its scientific work: <http://www.efsa.europa.eu/en/keydocs/docs/expertselection.pdf>.

*Participated on day 2

The Chair welcomed the participants. Apologies were received from Raffaella Corvi (observer JRC).

2. Adoption of agenda

The agenda was adopted without changes.

3. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence² and the Decision of the Executive Director on Competing Interest Management³, EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

4. Agreement of the minutes of the 7th Working Group meeting held on 29 May 2019 as a teleconference

The minutes of the 7th Working Group meeting (via teleconference) were agreed by written procedure on 24 June 2019.

5. Scientific topics for discussion

5.1. Request for an advice from the PPR panel on the EC mandate on triazine amine genotoxicity assessment (agenda item 2)

The revisions made to document EFSA/SC/2464 were discussed and the text was amended to include the new data made available to the Working Group (WG).

5.2. Introduction to the EFSA Pesticides Genotoxicity Database (agenda items 3 and 4)

A database compiling all the pesticides genotoxicity data submitted to EFSA was presented to the WG. The database has been published in 2017 and it is publicly available at the link: <https://data.europa.eu/euodp/data/dataset/database-pesticide-genotoxicity-endpoints>. The WG discussed the possibility to expand the database by adding information about genotoxicity data on food contact materials, food and feed additives and enzymes.

5.3. Request for advice from FEEDAP on curcuma (agenda item 5)

The WG was presented with a new request for advice from the FEED Unit. The data have not yet been submitted to EFSA so the detailed discussion will take place in the September meeting.

5.4. Feedback from the discussion on para-chloroaniline (PCA) at the Peer Review meeting, 20-21 June (agenda item 6)

The WG was briefed about the discussion on PCA at the Pesticides Peer Review meeting.

² http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf

³ http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf

5.5. Feedback from the UK Committee on Mutagenicity (UK COM) workshop on "Interpretation of Genetic Toxicology Data in a Regulatory Environment - Challenges for the 2020's" (agenda item 7)

The WG was briefed about this workshop which raised several questions on genotoxicity assessment also of relevance to the WG.

An event report will be prepared by UK COM and published probably in the beginning of 2020.

5.6. Aneugenicity

5.6.1. Hearing Experts

Dr. Christina Tlustos, Dr. Uta Herbst, Dr. Roland Frötschl, and Dr. Bodo Haas were invited to present their views and knowledge on aneugenicity assessment, particularly in relation to *in vivo* follow up of positive *in vitro* results. Several questions were raised and discussed and examples were presented.

5.6.2. Discussion of draft guidance on aneugenicity assessment (EFSA/SC/2475)

The draft guidance EFSA/SC/2475 was discussed and tasks for revision of the text were distributed.

The timeline were slightly modified. The aim is now to publish the draft guidance for public consultation in December and to finalise it by spring 2020.

6. Any Other Business

The WG was informed that this was Jenny's last meeting, as she will be leaving EFSA at the end of July. The chair thanked her for her work.

7. Next meetings

- 2nd September, 13.00-17.00: Teleconference
- 26-27th September: Meeting in Parma
- 18th October, 9.00-13.00: Placeholder for teleconference
- 5-6th November: Meeting in Parma
- 6th December, 9.00-13.00: Placeholder for teleconference



SCIENTIFIC COMMITTEE CROSS-CUTTING WORKING GROUP ON GENOTOXICITY

Minutes of the 7th meeting

Teleconference, 29 May 2019, 9.00-12.00

(Agreed on 24 June 2019)

Participants

- Working Group Members:

Gabriele Aquilina, Diane Benford, Margherita Bignami, Riccardo Crebelli, Francesca Marcon, Josef Schlatter, Christiane Vleminckx

- EFSA:

SCER Unit: Daniela Maurici (WG coordinator), Jenny Maner (Trainee); CONTAM Unit: Hans Steinkellner; FEED Unit: Fabiola Pizzo

1. Welcome

EFSA welcomed the participants. Apologies were received from Claudia Bolognesi, Rainer Gürtler, and Elsa Nielsen.

2. Discussion of the question submitted by the CONTAM Panel on Ochratoxin A (OTA)

The EFSA CONTAM Panel has received a mandate from the European Commission for a scientific opinion on the risks for public health related to the presence of ochratoxin (OTA) in food. The request is for an "assessment of the toxicity studies on ochratoxin A which have become available since the EFSA opinion on ochratoxin A in 2006 and to update the scientific opinion if necessary as regards the hazard characterisation".

The request for an advice from the CONTAM panel to the cross-cutting WG Genotoxicity was received in April 2019 and introduced at the 6th meeting on 29-30 April 2019 (EFSA/SC/2480). Two questions were posed to the WG:

1. What is the most plausible mechanism for the gene mutations in the target tissue (kidney) of OTA carcinogenicity:
2. What is the mechanism underlying the OTA-induced aneuploidy and polyploidy in the target tissue of OTA carcinogenicity (the kidney)



A table summarizing the data available for the assessment of the genotoxic potential of OTA in vivo was prepared by one of the WG members in preparation for the meeting. The WG discussed the data. A short report of the teleconference will be circulated as reply to the request from the CONTAM Panel.

3. Any Other Business

It was reported to the WG that the International Agency for Research on Cancer (IARC) is also currently evaluating OTA.

The next WG is foreseen for 26-27 June 2019.



SCIENTIFIC COMMITTEE

CROSS-CUTTING WORKING GROUP ON GENOTOXICITY

Minutes of the 6th meeting, 29-30 April 2019, EFSA, Parma

(Agreed on 03 June 2019)

List of Participants

■ Working Group Members:

Josef Schlatter (vice-chair), Gabriele Aquilina, Margherita Bignami, Claudia Bolognesi, Tamara Coja, Riccardo Crebelli, Rainer Gürtler, Francesca Marcon (only on 30th April), Elsa Nielsen, Christiane Vleminckx

■ Hearing Experts (participating only for item 8 on aneugenicity on 30th April):

Roland Froetschl (Bundesinstitut für Arzneimittel und Medizinprodukte (BfArM)), Bodo Haas (BfArM), Uta Herbst (Bundesamt für Verbraucherschutz und Lebensmittelsicherheit (BLV))

■ Observers (participating only for items 7 and 8 on aneugenicity):

Raffaella Corvi (JRC-ISPRA, Italy), Frank Le Curieux (ECHA, Finland)

■ EFSA:

SCER Unit: Daniela Maurici, Jenny Maner; PREV Unit: Juan Parra Morte; FIP Unit: Maria Carfi, Carla Martino; NUTRI Unit: Annamaria Rossi

1. Welcome and apologies for absence

The meeting was chaired by the vice-chair. He welcomed the participants. Apologies were received from Diane Benford (chair), and by Francesca Marcon for the first day of the meeting.

2. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence¹ and the Decision of the Executive Director on Competing Interest Management², EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

¹ http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf

² http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf



3. Scientific topics for discussion

3.1. Request for an advice from the PPR Panel on triazine amine

The PPR panel requested the support of the cross-cutting working group (WG) on Genotoxicity in relation to the EC mandate on the genotoxic potential of triazine amine (M-2018-0207).

The data were discussed in previous meetings. Additional data have been submitted and will be considered by the WG. This will delay the conclusion of the work. An extension of the mandate will be requested to the Commission and finalisation of the work will be probably by the end of 2019. Pending confirmation from the PPR secretariat, the WG will submit an updated report to the PPR panel in autumn.

3.2. Request for an advice from the CONTAM Panel, Ochratoxin WG

The EFSA CONTAM Panel has received a mandate from the European commission (EFSA-Q-2018-00699) for a scientific opinion on the risks for public health related to the presence of ochratoxin (OTA) in food. The request is for an "assessment of the toxicity studies on ochratoxin A which have become available since the EFSA opinion on ochratoxin A in 2006 and to update the scientific opinion if necessary as regards the hazard characterisation".

In the various plenary discussions, the CONTAM Panel concluded that establishing the mode(s) of action for OTA genotoxicity is crucial for assessing the human health risks from OTA in food.

In view of the complexity of the issue the CONTAM Panel concluded that advice is needed from the SC WG Genotoxicity and the following questions are forwarded to the WG:

- What is the most plausible mechanism for the gene mutations in the target tissue (kidney) of OTA carcinogenicity;
- What is the mechanism underlying the OTA-induced aneuploidy and polyploidy in the target tissue of OTA carcinogenicity (the kidney).

The WG discussed the various issues and concluded that a dedicated meeting should be planned to review the genotoxicity data available before concluding on OTA genotoxicity and/or carcinogenicity.

3.3. Self-task mandate on aneugenicity

The WG discussed the preliminary draft document EFSA/SC/2475 prepared by 2 members of the WG. Comments were made that will be considered for the revision. Additional charter will be drafted for the next meeting.

The WG agreed to invite 3 hearing experts to participate via teleconference for this agenda item. They were asked to present their view on aneugenicity assessment in their respective area of activity. The hearing experts suggested the WG to prepare specific questions that could be submitted to receive more precise feedback on relevant issues related to aneugenicity assessment. The hearing experts will be probably re-invited to participate via conference call to one of the next WG meetings.

3.4. Request from the Nutri unit on novel food *Hovenia Dulcis* fruit extract

The Novel Food (NF) is a hot water extract obtained from the dried fruit and peduncle (commonly called "fruit") of *Hovenia dulcis* Thunberg (family: Rhamnaceae; genus: *Hovenia*), which is commonly known as Japanese raisin tree, Japanese cherry tree and Chinese raisin tree. The NF will be used as an ingredient for food supplement.



In Regulation (EC) No 2015/2283 Article (3) it falls under the following category (iv) "foods and food ingredients consisting of or isolated from plants, except for foods and food ingredients obtained by traditional propagating or breeding practices and having a history of safe use."

The WG was presented with the genotoxicity data available for this NF and with some questions in relation to the approach proposed to test this mixture. Some comments were made that will be reported and discussed in the WG on novel food.

4. Next meetings

Dates of next meetings in 2019

29th May, 9.00-13.00, placeholder for teleconference

27th -28th June, Parma

3rd September, 14.00-17.00, placeholder for teleconference

26th -27th September, Parma

18th October, 9.00-13.00, placeholder for teleconference

5th-6th November, Parma

6th December, 9.00-13.00, placeholder for teleconference

SCIENTIFIC COMMITTEE

MINUTES OF THE 5TH MEETING OF THE CROSS-CUTTING WORKING GROUP ON GENOTOXICITY

Teleconference, 11th April 2019

(Agreed on 10 May 2019)

Participants

■ Working Group Members:

Diane Benford
Gabriele Aquilina
Claudia Bolognesi
Riccardo Crebelli
Rainer Gürtler
Francesca Marcon
Elsa Nielsen
Josef Schlatter
Christiane Vleminckx

■ EFSA:

SCER Unit: Daniela Maurici, Jenny Maner
FIP Unit: Maria Carfi
PREV Unit: Juan Parra Morte



1. Welcome and apologies for absence

The Chair welcomed the participants. Apologies were received from Margherita Bignami.

2. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence¹ and the Decision of the Executive Director on Competing Interest Management², EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

3. Scientific topics for discussion

3.1. Request for an advice from the PPR panel on triazine amine

The PPR panel requested the support of the WG Gentox in relation to the EC mandate on the genotoxic potential of triazine amine (M-2018-0207).

The draft report compiling the contributions of the WG members was discussed in the PPR plenary meeting in the beginning of April. Some comments were provided that were discussed during the teleconference. A revised version of the draft report will be sent to the PPR secretariat.

Additional data will be probably submitted to EFSA on this substance. The WG will be then consider this data to conclude the overall assessment of triazine. Pending confirmation from the PPR secretariat, the WG will submit an updated report to the PPR panel in autumn.

3.2. Self-task mandate on aneugenicity

The WG discussed the literature search on aneugenicity performed by EFSA. Tasks were assigned to different WG members.

A very preliminary draft document was tabled and will be further discussed at the WG meeting in the end of April.

The WG agreed to invite at the next meeting representative from EMA to discuss the approach used for aneugenicity assessment of human and veterinary drugs.

4. Any Other Business

4.1. Request for an advice from the CONTAM panel

The WG was informed that a request for an advice from the CONTAM panel on Ochratoxin A will be tabled for discussion at the next WG meeting.

5. Next meetings

Dates of next meetings in 2019: 29th-30th April, Parma; 27th-28th June, Parma.

¹ http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf

² http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf

SCIENTIFIC COMMITTEE

MINUTES OF THE 4th MEETING OF THE CROSS-CUTTING WORKING GROUP ON GENOTOXICITY

Teleconference, 22nd March 2019

(Agreed on 10 May 2019)

Participants

- Working Group Members:
 - Diane Benford, chair of the WG Gentox
 - Christiane Vleminckx
 - Riccardo Crebelli
 - Claudia Bolognesi
- Hearing Experts:
 - Dimitra Nikolopoulou, RMS Greece
 - Eliana Spilioti, RMS Greece
 - Kyriaki Machera, RMS Greece
- Observers:
 - Catarina Eriksson (Swedish Medical Products Agency - nominated by EMA), observer
 - Laura Ruggeri (ECHA), observer
 - Paschalina Papadaki (ECHA), observer
- EFSA:
 - PREV Unit: Juan Parra Morte
 - SCER Unit: Daniela Maurici
 - SCER Unit: Jenny Maner



1. Welcome

EFSA welcomed the participants, introduced the cross-cutting working group (WG) on Genotoxicity, and provided some background information on the process of the genotoxicity assessment of para-chloroaniline (PCA).

2. Discussion

The WG presented the draft technical report (TR) summarising the analysis of the data on parachloroniline (PCA). This work is a follow up of a request from the PREV Unit to the WG in order to have a view on the analysis previously done.

Rapporteur Member State (RMS) Greece (EL) commented that the draft provided by the EFSA WG gentox was very clear. The different chapters were discussed in detail. RMS EL asked several clarifications.

3. Any Other Business

3.1. Follow up actions after the teleconference

EFSA summarised the follow up actions that will be taken after the teleconference. The draft technical report will be sent to the PREV Unit that requested the advice from the WG genotoxicity.

EFSA will discuss diflubenzuron in the Peer Review meeting in June. The toxicological profile of the compound will be presented, including the assessment of the metabolite PCA. One member of the WG will be probably invited to present the view of the WG genotoxicity.



SCIENTIFIC COMMITTEE AND EMERGING RISKS UNIT

Minutes of the 3rd meeting

Scientific Committee cross-cutting Working Group

Genotoxicity (2018-2021)

Held on 27th-28th Feb 2019 in EFSA, Parma (IT)

(agreed on 26 March 2019)

Participants

- **Working Group Members:**

Diane Benford (Chair), Gabriele Aquilina, Claudia Bolognesi, Tamara Coja*, Riccardo Crebelli, Rainer Gürtler, Elsa Nielsen, Josef Schlatter, Christiane Vleminckx, Francesca Marcon* .

- **EFSA:**

SCER Unit: Daniela Maurici, Jenny Maner

FIP Unit: Maria Carfi, Carla Martino

NUTRI Unit: Annamaria Rossi

FEED Unit: Paola Manini and Fabiola Pizzo

PREV Unit: Juan Parra Morte

*participated only day 1



1. Welcome and apologies for absence

The Chair welcomed the participants. Apologies were received from Margherita Bignami.

2. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence and Scientific Decision-Making Processes¹ and the Decision of the Executive Director on Declarations of Interest² EFSA screened the Annual Declaration of Interest filled in by the working group members invited for the present meeting. No Conflicts of Interest related to the issues discussed in this meeting were identified during the screening process or at the Oral Declaration of Interest at the beginning of this meeting.

3. Request for an advice from the Pesticides Unit on para-chloroaniline

In the context of the renewal for the substance diflubenzuron, EFSA is in the process of assessing comments of Member States and applicant, identifying points where clarification is needed. EFSA requested the view of the WG genotoxicity for some aspects related to the possible genotoxicity Mode of Action for 4-chloroaniline (PCA - a potential residue of the pesticide diflubenzuron) and related uncertainty analysis.

Background information were shared with the WG, namely:

In 2012, EFSA concluded that PCA is an in vivo genotoxic substance.

In 2015, EFSA concluded that PCA is genotoxic and carcinogenic.

The EFSA WG Gentox was provided with the following data:

- UK COMM 2009, statement on genotoxicity of Para-chloroaniline (COM/09/S3). Assessment done on available data on PCA. The outcome of this assessment proposed testing strategy to follow up the results. It was the basis for the EC to set confirmatory data requirement on which new in vivo studies were conducted by the applicant (i.e. original studies in vivo UDS, in vivo comet, in vivo MN) on which EFSA concluded that PCA is an in vivo genotoxic substance (EFSA, 2012).
- Krsmanovic, 2011. Study report on genotoxicity assessment of para-chloroaniline following oral administration (in vivo MNT)
- Pant and Celestin, 2011. Study report on para-chloroaniline: Comet assay in rat peripheral blood liver and spleen cells following oral administration
- Pant and Celestin, 2011. Study report on para-chloroaniline: Unscheduled DNA synthesis (UDS) test with mammalian cells in vivo
- Brown and Ciubotaru, 2017. Study report on in vivo mutation assay at the cII locus in Big Blue transgenic F344 rats and micronuclei analysis in peripheral blood
- Beevers and Parsons, 2019. Statement on Mode of Action and human relevance assessment of genotoxicity and carcinogenicity observed in rodents.

¹ <http://www.efsa.europa.eu/en/keydocs/docs/independencepolicy.pdf>

² <http://www.efsa.europa.eu/en/keydocs/docs/independencerules2014.pdf>



- Hendriks et al. 2016: The Extended ToxTracker assay discriminates between induction of DNA damage, oxidative stress and protein misfolding. Toxicological sciences 2016, p190-203.

The data was reviewed by the WG. The lack of access to the original data in some instances was noted. It was agreed to draft a report by mid-March to be discussed in a dedicated teleconference with representatives from EMA, ECHA, and the RMS Greece on 22nd March 2019. A final report will be then sent to the requestor.

4. Request for an advice from the PPR panel on triazine amine

The PPR panel requested the support of the WG Gentox in relation to the EC mandate on the genotoxic potential of triazine amine (M-2018-0207).

Data provided by the applicant were presented and discussed. The draft contributions of the WG members to the report summarising the assessment were also discussed. It was agreed to send a revised version of the report to the PPR panel secretariat by the end of March. The draft report providing the view of the WG Gentox will be tabled and discussed at the PPR panel plenary in the beginning of April.

5. AOB

Possible statement/opinion on aneugenicity assessment

The WG discussed the aneugenicity self task mandate and considered the possibility to invite hearing experts at one of the next meetings. The search strings for the literature search on this matter were discussed.

6. Next meeting(s)

Dates of next meetings in 2019:

- 22nd March: teleconference
- 11th April: placeholder for teleconference
- 29th-30th April: Parma
- 27th-28th June: Parma

SCIENTIFIC COMMITTEE AND EMERGING RISKS UNIT

Minutes of the 2nd meeting

Scientific Committee cross-cutting Working Group

Genotoxicity (2018-2021)

**Held on 31st Jan - 1st February 2019 in Parma
(Agreed on 27th February 2019)**

Participants

- **Working Group Members:**

Diane Benford (Chair), Gabriele Aquilina, Claudia Bolognesi, Riccardo Crebelli, Rainer Gürtler, Elsa Nielsen, Josef Schlatter, Christiane Vleminckx.

- **EFSA:**

SCER Unit: Daniela Maurici

FIP Unit: Maria Carfi, Carla Martino

NUTRI Unit: Annamaria Rossi

FEED Unit: Paola Manini and Fabiola Pizzo

PREV Unit: Juan Parra Morte

- **Observers**

Raffaella Corvi (DG JRC) and Frank Le Curieux (ECHA), only on 1 February 2019.

1. Welcome and apologies for absence

The Chair welcomed the participants. Apologies were received from Margherita Bignami and Francesca Marcon.

2. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence and Scientific Decision-Making Processes¹ and the Decision of the Executive Director on Declarations of Interest² EFSA screened the Annual Declaration of Interest filled in by the working group members invited for the present meeting. No Conflicts of Interest related to the issues discussed in this meeting were identified during the screening process or at the Oral Declaration of Interest at the beginning of this meeting.

¹ <http://www.efsa.europa.eu/en/keydocs/docs/independencepolicy.pdf>

² <http://www.efsa.europa.eu/en/keydocs/docs/independencerules2014.pdf>

3. Request for an advice from the PPR panel – update from the last meeting

The PPR panel requested the support of the WG gentox in relation to the EC mandate on the genotoxic potential of Triazine amine (M-2018-0207). The WG reviewed all the available genotoxicity data and discussed the results in the meeting. It was agreed to draft a report that summarises the discussion; the report will be sent to the PPR panel who will discuss it in its plenary meeting in the beginning of April. If necessary, the WG genotoxicity will be requested to provide additional clarification. The aim for the PPR panel is to adopt the opinion by end of June to respect the deadlines set by the Commission for this mandate.

4. Request for an advice from the Pesticides Unit

In the context of the renewal for the substance diflubenzuron, EFSA is in the process of assessing comments of Member States and applicant, identifying points where clarification is needed. EFSA requested the view of the WG genotoxicity for some aspects related to the possible genotoxicity Mode of Action for 4-chloroaniline (PCA) and related uncertainty analysis.

The WG was presented with 2 papers on the ToxTracker assay (Hendriks G. et al. Toxicol. Science, 2012; Hendriks G. et al. Toxicol. Science, 2016) a test that has been proposed to give an insight on the mechanisms of action of genotoxic compounds and therefore clarifying some issues related to PCA as a potential residue of diflubenzuron.

5. Possible statement/opinion on aneugenicity assessment

The WG was presented with a draft self-task mandate on aneugenicity assessment and discussed the specific terms of reference. The mandate was finalised and will be presented at the SC plenary meeting in the end of February for final approval.

The group discussed the various issues related to genotoxicity assessment especially in relation to the in vivo follow up of substances that have shown potential for aneugenicity in vitro. It was agreed to do some literature searches and to invite hearing experts in one of the next meetings to seek views outside the group.

The aneugenicity will be again on the agenda in April.

6. Next meeting(s)

Dates of next meetings in 2019:

- 27-28 February, Parma
- 11 April, placeholder for teleconference
- 29-30 April, Parma,
- 27-28 June, placeholder, Parma

Minutes of the KICK OFF MEETING of the re-established Scientific Committee cross-cutting Working Group on Genotoxicity

**Held on 3-4 December 2018 in Parma
(Agreed on 4 January 2019)**

Participants

- **Working Group Members:**

Diane Benford (Chair), Gabriele Aquilina, Claudia Bolognesi, Riccardo Crebelli, Rainer Gürtler, Francesca Marcon, Elsa Nielsen, Josef Schlatter, Christiane Vleminckx,

- **EFSA:**

SCER Unit: Daniela Maurici

FIP Unit: Maria Carfi, Carla Martino, Ana Rincon

NUTRI Unit: Annamaria Rossi

FEED Unit: Paola Manini and Fabiola Pizzo

PESTICIDES Unit: Federica Crivellente and Danièle Court Marques

1. Welcome and apologies for absence

The Chair welcomed the participants. Apologies were received from Margherita Bignami, Raffaella Corvi (DG JRC) and Frank Le Curieux (ECHA).

2. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence and Scientific Decision-Making Processes¹ and the Decision of the Executive Director on Declarations of Interest² EFSA screened the Annual Declaration of Interest filled in by the working group members invited for the present meeting.

Elsa Nielsen declared an interest in relation to Quillaia extract. Denmark Technical University was the contractor of an EFSA procurement to prepare the "Draft preparatory documents, including toxicological and non-toxicological data, to support the preparatory work for the re-evaluation of food additives permitted in the European Union". Elsa was the team coordinator not directly involved in the preparatory work. The final version of the external report was submitted to EFSA 1 March 2013.

No Conflicts of Interest related to the issues discussed in this meeting were identified during the screening process or at the Oral Declaration of Interest at the beginning of this meeting.

¹ <http://www.efsa.europa.eu/en/keydocs/docs/independencepolicy.pdf>

² <http://www.efsa.europa.eu/en/keydocs/docs/independencerules2014.pdf>

3. Request for an advice from the FIP Unit

The FAF WG on the “re-evaluation of the remaining food additives other than colours and sweeteners” submitted a request to the WG via the FIP unit secretariat. The request for advice related to the evaluation of the available genotoxicity studies for the re-evaluation of Quillaia extract (E999) as a food additive and the preliminary assessment done by the FAF WG. The dataset was presented and explained by Rainer Gürtler and Ana Rincon. The WG gentox agreed with the conclusions of the FAF WG.

4. Request for an advice from the Pesticides Unit

Danièle Court Marques presented data on 4-Chloroaniline (PCA) as a metabolite potentially present in the residues resulting from the application of the pesticide diflubenzuron.

In the context of the renewal for the substance diflubenzuron, EFSA is in the process of assessing comments of Member States and applicant, identifying points where clarification is needed. In this context, EFSA would like to seek the view of the WG genotoxicity for some aspects related to the possible genotoxicity Mode of Action for PCA and related uncertainty analysis. Detailed data will be provided to the WG that will express its view in the next meetings.

5. Possible statement/opinion on aneugenicity assessment

Maria Carfi presented an overview of genotoxicity assessment in relation to substances that have provided indication of aneugenicity in *in vitro* testing. The issue of appropriate follow up *in vivo* for these substances has been discussed. The WG agreed to prepare an opinion/statement that clarifies and complement the EFSA Genotoxicity Testing Strategies published in 2011 (EFSA 2011, link [here](#)) in relation to the issue of aneugenicity assessment. The Term of Reference of a self task mandate of the Scientific Committee will be drafted by the secretariat and shared with the WG for possible comments.

6. Request for an advice from the PPR panel

The PPR panel requested the support of the WG gentox in relation to the EC mandate on the genotoxic potential of Triazine amine (M-2018-0207). The mandate was presented to the WG by Federica Crivellente. The deadline to deliver an opinion is July 2019. The WG will review all the available genotoxicity data and will provide an advice to the PPR Panel by spring 2019.

7. Next meeting(s)

Dates of next meetings in 2019:

- 31 Jan- 1 Febr, Parma
- 27-28 Febr, Parma
- 11th April, placeholder for teleconference
- 29-30 April, Parma,
- 27-28th June, placeholder, Parma