Committee on Toxicity of Chemicals in Food, Consumer Products and the Environment

Minutes of the meeting held on Tuesday 7th February 2017 in Aviation House, London.

Present

Chairman:	Professor D Harrison		
Members:	Mr D Bodey Dr J Coulson Dr R Crevel Dr A Hansell Dr C Harris Prof R Harrison Prof B Lake Prof I Morris Dr N Plant Prof F Williams		
Food Standards Agency (FSA) Secretariat:	Dr D Gott Mr B Maycock Ms C Mulholland Ms H Gbormittah Ms F Hill Ms R Acheampong Dr D Hedley Dr J Shavila Ms K Sturgeon Ms C Potter		
Public Health England (PHE) Secretariat:	Ms B Gadeberg Dr O Sepai	PHE Scientific Secretary	
Invited Experts and Contractors:	Prof P Aggett Halina Garavini	SMCN Imperial College London	Items 10 - 12

	Prof T Sathyapalan	Hull York Medical School	Item 7
	Dr M Rose	FERA	Item 7
	Dr L Aylward (via teleconference)	Summit Toxicology, USA	Item 7
Officials:	Vivien Lund	PHE	
	Emily Watson	PHE	
	Ken Okona-Mensah	PHE	Item 12
	Alette Addison	Department of Health	Item 12
	Helen Smith (via teleconference)	PHE	Item 9
	Sheila Katureebe	PHE	
Assessors:	Prof Tim Gant	PHE	
	Julianna Measures	HSE	

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Announcements

1. The Chair welcomed Members and other attendees to the meeting.

2. Dr Gott announced that there was a get well card available for Members to sign for Dr Diane Benford, who was currently in hospital in New Zealand following a coach crash. The Chair and Committee expressed their wishes for a speedy recovery.

3. The Chair reminded those attending the meeting to declare any commercial or other interests they might have in any of the agenda items.

Item 1: Apologies for absence.

4. Apologies were received from Prof A Boobis, Prof J Cade, Dr B Houston, Dr J Thompson, Professor Rob Smith and Dr M Graham. Comments were received from Prof Boobis.

Item 2: Draft minutes of the meeting held on 6th December 2016.

5. The minutes were agreed without amendments.

Item 3: Matters arising from the meeting held on 6th December 2016

Item 3: Matters arising from previous meetings

6. Para 7: The fourth meeting of the COT-COC synthesising epidemiological evidence subgroup (SEES) was scheduled for 17th February. The intention was for the draft guidance document to be considered by the COT and COC at their meetings in March.

7. Para 9: Interviews had been held and new public interest and specialist members recommend for appointment. It was not possible to recruit specialist members in some key areas and these would be re-advertised with efforts to reach the target audience. The process for appointment of new members and re-appointment of existing members was on-going. The Chief Medical Officers and the FSA Chair had approved the appointments and the FSA Chair had sent out formal letters.

8. Para 10: The Statement and lay summary on the potential risks from acrylamide in the diet of infants and young children had both been published.

9. Para 11: The draft addendum to the Statement on potential risks from PBDEs in the infant diet was still in the process of being finalised ahead of being cleared by Chair's action.

10. Para 12: The lay summary on potential risks from hexabromocyclododecanes in the infant diet had been published.

Item 5: Third draft statement on evidence regarding maternal and infant dietary exposures and risk of atopic outcomes and autoimmune disease

11. Para 27: The draft Statement was still in the process of being finalised ahead of clearance by Chair's action.

Item 4: Potential future discussion items – horizon scanning - TOX/2017/01

12. Members noted a list of agenda items for 2017 that were planned or underway, and discussed several other suggested topics that might also be considered.

13. A Member had noted that the European Food Safety Authority (EFSA) and the European Medicines Agency (EMA) were jointly preparing guidance on identifying endocrine disrupters and the COT could respond to the consultation on the draft guidance.

14. Members agreed that they would like a presentation on the International Life Sciences Institute (ILSI) Health and Environmental Sciences Institute (HESI) Risk Assessment in the 21st Century (RISK21) approach.

15. It had been proposed that the Committee be provided with a short write-up of a symposium at the 2017 British Toxicology Society Annual Congress on "Toxicology and the Human Microbiome," after which Members could discuss the priority of this topic and approaches to taking it forward. The COT interest would be the application of knowledge of the microbiome in risk assessment. Members agreed that the COT should consider this topic, and a Member suggested that the COT could produce a position note.

16. A joint symposium of the COT and the Committees on Carcinogenicity (COC) and Mutagenicity (COM) on trans- and multi-generational toxicity was being arranged for the 6th or 9th October, to be held at PHE in Chilton. A draft programme was tabled. The speaker names included were provisional. Members were asked for any suggestions of areas to include or speakers.

17. One Member had suggested that the application of adverse outcome pathways (AOPs) to risk assessment at the present time be considered by the COT.

18. A Member requested that there be a mechanism whereby the Secretariat could feed back to the COT on EFSA work. Members agreed that it would be useful to start capturing information on what EFSA is working on.

19. Members agreed that the Committee would reconsider the balance of expertise of the Committee at the next meeting in March, when they would know which new Members had been appointed.

20. It was agreed that a list of the agreed topics, with a plan to take them forward, should be taken to the next meeting.

Item 5: A review of potential risks from iodine in the diets of infants aged 0 – 12 months and children aged 1 to 5 years – TOX/2017/03

21. No conflicts of interest were declared

22. The COT had been asked to consider the toxicity of chemicals in the diets of infants (0 to 12 months) and young children (1 to 5 years), in support of a review by the Scientific Advisory Committee on Nutrition (SACN) of Government recommendations on complementary and young child feeding. A scoping paper (TOX/2015/32), highlighting some of the chemicals for possible consideration was discussed by the COT in October 2015. Members had concluded that a full review of the exposures from iodine should be completed.

23. A discussion paper on iodine (TOX/2016/38) was presented to the COT in December 2016. Members' comments were taken on board and a first draft statement was discussed at the current meeting.

24. Members made a number of comments on the structure and wording of the draft statement and sought some points of clarification. These included the basis of the reference nutrient intake (RNI) and its proximity to the health-based guidance values that had been identified. Members with expertise in nutrition agreed to provide some text for the Statement. A second draft statement would be prepared for consideration at a future meeting.

Item 6: First draft addendum to the 2013 COT statement on potential risks from vitamin A in the infant diet– TOX/2017/04

25. No conflicts of interest were declared.

26. This topic was part of the review of the risks from chemicals in the infant and young child diet in support of a review by the SACN of Government recommendations on complementary and young child feeding. A discussion paper

had been presented to the Committee in December 2016 and it had been agreed that a draft statement should be produced.

27. Members were provided with additional information on hepatotoxicity from the former EU Scientific Committee on Food's review of vitamin A and the COT derived tolerable upper intake level (TUL) for infants.

28. Members made a number of comments on the wording and structure of the draft Statement.

29. The draft Statement would be discussed by the SACN Sub-group on Maternal and Child Nutrition (SMCN) on 28th February. It was agreed that the COT would then finalise the Statement by correspondence.

Item 7: FSA Funded Study on Chlorinated and Brominated Dioxins, Furans, Biphenyls and Diphenylethers in Adipose Tissue, Liver Tissue, and Blood in Obese and Control Groups in the United Kingdom –TOX/2017/05

30. Professor Ian Morris declared a non-personal non-specific interest in that he was a colleague of one of the contractors who had undertaken this research.

31. The Chairman welcomed Professor Thozhukat Sathyapalan from Hull and York Medical School, Dr Martin Rose from Fera and Dr Lesa Aylward from Summit Toxicology (via teleconference), who had been commissioned by the FSA to undertake this research.

32. The FSA had funded two projects ("Toxicodynamics in an obese population" and "Brominated compounds: determination of levels of brominated chemicals in a human population") to measure dioxins and brominated compounds in morbidly obese and comparative control individuals, and investigate the toxicokinetics of these compounds and their distribution in adipose tissue. The projects aimed to characterise the burden of dioxins and brominated compounds in liver and adipose tissue, and the relationship with blood levels of dioxins in a UK population. Professor Sathyapalan gave a presentation of the results of the studies.

33. Members asked whether, when taking the fat biopsies, the investigators looked for the level of inflammation as obese patients can be in a pro-inflammatory state. Professor Sathyapalan stated that this was not examined during the studies. Members discussed whether any of the chemicals investigated were substrates for transporters; this was not thought to be the case but it was possible that metabolites might be.

34. Members discussed that as the health effect of concern was developmental toxicity then the study could have negative implications for large weight loss in women prior to pregnancy and during lactation.

35. Members concluded that the results would not alter the risk assessment of these compounds nor was there a reason to revisit the conclusions from the 2015 symposium.

Item 8: Potassium-based replacements for sodium chloride and sodium-based additives: Draft working group report – TOX2017/06

36. Dr Crevel declared a non-personal specific interest and did not take part in the discussion of this item.

37. In 2013, the Department of Health (DH) had asked the SACN to review current recommendations on the use of potassium-based replacements for sodium chloride and sodium-based additives.

38. The COT had been asked by the SACN to advise on the possible adverse effects of increased potassium intakes as a consequence of salt replacement. The COT statement on potassium based replacements for sodium chloride and sodium-based additives was finalised in May 2015.

39. As SACN was working on the potential benefits of increasing the use of potassium based replacements for sodium chloride and sodium based additives by both reducing sodium intakes and increasing potassium intakes, it had been agreed that there should be a risk benefit assessment so that unified advice could be given to risk managers. A joint COT/SACN working group had been formed to undertake this task.

40. The potassium joint Working Group (WG) had prepared a draft report setting out the risk benefit assessment. Members were asked for their comments on the draft report.

41. Members agreed that the formal risk-benefit assessment had been a very useful approach to this topic. Members made a number of minor comments on the structure and content of the draft report.

42. It was noted that SACN would also be asked to comment. The WG report would then be finalised and published as soon as possible thereafter along with the final COT and SACN statements and a separate document containing the exposure modelling data.

Item 9: First draft statement on potential risks from nickel in the diets of infants aged 0 – 12 months and children aged 1 to 5 years – TOX/2017/02.

43. No conflicts of interest were declared.

44. The SACN had been undertaking a review of scientific evidence that would influence the Government's dietary recommendations for infants and young children. The SACN was examining the nutritional basis of the advice. The COT had been asked to review the risks of toxicity from chemicals in the diet of infants, most of which had been completed, and of young children aged 1 to 5 years.

45. This first draft Statement on nickel (TOX/2017/02) was presented to the Committee. Annex A provided toxicological information to facilitate establishing a tolerable daily intake (TDI) for nickel. The EFSA TDI could be used in the risk characterisation but there was still some concern that the endpoint used in the derivation of the EFSA TDI was not applicable to infants and young children. Annex B contained information on nickel sensitisation of infants and young children aged 1 to 5 years. Given that the prevalence of nickel sensitisation was similar to adults, Members agreed that the risk characterisation needed to address both acute and chronic dietary exposures.

46. A second draft statement for nickel would be considered by the Committee in March 2017 and would include a proposed TDI, draft risk characterisations for acute and chronic dietary exposures and a number of minor changes requested by the Committee.

Item 10: Draft guidance on submission of papers to COT regarding irritant sprays and information required (reserved business) – TOX/2017/07

47. No interests were declared.

48. Following discussions of irritant sprays by the COT in the last few years it had been suggested that guidance should be produced on the information required in submissions of irritant sprays so the Committee could evaluate the sprays and their formulations in a timely manner. This item was taken as reserved business as it included the discussion of commercially-confidential information.

Item 11: Draft statement on a new formulation of PAVA irritant spray (reserved business) – TOX/2017/08

49. No interests were declared.

50. The Committee considered a draft Statement on a new formulation of PAVA, which was discussed by the Committee in 2015 and 2016. This item was taken as reserved business as it included discussion of commercially-confidential information.

Item 12: Toxicological evaluation of novel tobacco products: Overview summary of data submitted – follow up (reserved business) – TOX/2017/09

51. No interests were declared.

52. This paper provided Members with a data matrix that was requested at the last meeting. This item was taken as reserved business as it included discussion of commercially-confidential information.

Item 13: Draft 2016 Annual Report – TOX/2017/10

53. Members were reminded to check their registered interests and provide any updates to the Secretariat. They were also asked to send any comments on the draft text to the Secretariat.

54. Members agreed that in 2016 the COT had complied with the Good Practice Guidelines, to the extent possible and as appropriate in its evaluations.

Item 14: Update on actions taken subsequent to COT advice – TOX/2017/11

55. The paper for this item had not been completed in time for the meeting as some information was still being sought. It would be circulated for Members' information and comments. Members noted that it was very useful to them to see how the Committee's advice had been used.

Item 15: Paper for information: FSA Scientific Advisory Committees (SACs) update – TOX/2017/12.

56. This paper had been provided for information.

Item 16: Any other business

57. No other business was raised.

Date of next meeting

58. Tuesday 28th March 2017 in Conference Rooms 4&5, Aviation House, 125 Kingsway, London, WC2B 6NH.