

# Scientific Advisory Committees (SACs) Update

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## 1. Summary

1.1 This paper contains a summary of activity in the following SACs over the last 6 months along with observations on issue that may be of interest to the Council from Science Council members who attend these committees (listed next to the Committee names):

- Advisory Committee on Novel Foods and Processes (ACNFP): Claire Nicholson
- Advisory Committee on Microbiological Safety in Food (ACMSF): Prof Jonathan Wastling
- Advisory Committee for Social Science (ACSS): Prof Sandy Thomas
- Committee on Toxicity of Chemicals in Food, Consumer Products and the Environment (COT): Prof John O'Brien
- Committee on Carcinogenicity of Chemicals in Food, Consumer Products and the Environment (COC): Prof John O'Brien
- The Committee on Mutagenicity of Chemicals in Food, Consumer Products and the Environment (COM): Prof John O'Brien
- Scientific Advisory Committee on Nutrition (SACN): N/A

1.2 Science Council members are asked to:

- Consider the update and feedback from their fellow members and;
- Discuss any topics that they consider will be beneficial following up.

## 2. Introduction

**2.1 Annex 1** of this paper contains an update of activity for the SACs listed above.

**2.2 Annex 2** contains the feedback provided by Council members that attended meetings of these SACs with their thoughts on topics that may be of interest to the Science Council.

**2.3 Annex 3** contains a list of upcoming scheduled meeting dates for SACs which Science Council members attend.

## **Annex 1: Summary of recent SAC activity (as of 30 Nov 2021)**

### **Advisory Committee for Social Science (ACSS)**

**Updated:** November 2021

**Last meeting:** 22nd June 2021 (Open session). Key agenda items:

- FSA update on key projects within the Analytics Unit.
- Working groups provided updates at their various work stages, with particular focus on the new Climate Change and Consumer Behaviour working group and the need to work closely with the Science Council, and to identify other relevant work (within the FSA, and internationally).
- Update from Prof. Sandy Thomas on the working group outputs from the Science Council.
- Presentations were given on Food and You 2 Wave 1 results, and key messages from the climate change and consumer behaviour expert workshop. Key findings from both were discussed.

Minutes and papers from the 7th ACSS meeting are available [here](#).

#### **Working group highlights:**

- The *Climate Change and Consumer Behaviour* working group are planning a second stage workshop, following the expert engagement exercise in May which aimed to map the consumer behaviour trends influenced by climate change concerns (a summary of this work is available [here](#)). A second workshop is currently being planned to engage across the FSA to explore possible next steps.

- The *Assurance* working group have commissioned a piece of work to develop a 'good science' quality assurance toolkit to support the production of high-quality research.
- The *Kitchen Life 2* working group continues to support the research project *Kitchen Life 2*, where Wave 1 of fieldwork is nearly complete. Initial findings from the pilot and wave 1 will be available in late November. Wave 2 recruitment has also commenced.
- The Committee are discussing a new working group to guide the *Wider Consumer Interests* social research programme.

The **next open meeting** of the ACSS is the 26th January 2022.

**Chair:** Professor Susan Michie

**Secretariat:** [acss@food.gov.uk](mailto:acss@food.gov.uk)

**Website:** <https://acss.food.gov.uk/>

## **Advisory Committee on Novel Foods and Processes (ACNFP)**

**Updated:** - November 2021

**Last meeting:** 24th November 2021

In addition to dossiers on mung bean protein, Calcidiol and a new dossier Cetylated fatty acids, preparatory work as reserved business for the Committee's review of further CBD dossiers and managing the future work on GM and Genome Editing (GE) food and feed products was discussed.

**Next meeting:** 2nd February 2022

**Chair:** Dr Camilla Alexander-White

**Secretariat:** [acnfp@food.gov.uk](mailto:acnfp@food.gov.uk)

**Website:** <https://acnfp.food.gov.uk/>

## **Advisory Committee on the Microbiological Safety of Food (ACMSF)**

**Updated:** November 2021

The Committee's last meeting was on 21 October 2021. The issues they considered include:

- Work of the committee's subgroup on toxin-producing Clostridia in food. [An update was presented to the committee on the activities of this group](#) setup in April 2021.
- Botulism in cattle, sheep, and goats: [The FSA's revised systematic literature review concerning botulism in cattle, sheep, and goats](#) was presented to the committee for comments
- [Members received an update on the recommendations made on the ACMSF reports on botulism in cattle, sheep, and goats](#)
- Epidemiology of Foodborne Infections Group. The committee received a [report on the outcome of the 9 June 2021 EFIG meeting](#)
  - response to comments made by members on EFIG reports
  - presentation from the UK Health Security Agency on the use of whole genome sequencing for gastrointestinal pathogen routine surveillance and outbreak detection and investigation
- Food and You 2 - Wave 1. [The Committee received a presentation on the FSA's survey: Food and You 2: Wave 1 findings.](#)
- The FSA's Foodborne Disease Policy Framework. The committee discussed and commented on this draft framework in closed session.

**Next meeting:** February 2022

**Chair:** Professor Bill Keevil

**Secretariat:** [acmsf@food.gov.uk](mailto:acmsf@food.gov.uk)

**Website:** <https://acmsf.food.gov.uk/>

## **Advisory Committee on Animal Feedingstuffs (ACAF)**

**Updated:** - November 2021

**Last meeting:** 27th June 2019

**Next meeting:** No dates set for 2021 meetings – Committee under review.

**Chair:** -

**Secretariat:** [acaf@food.gov.uk](mailto:acaf@food.gov.uk)

**Website:** <https://acaf.food.gov.uk/>

## **Committee on Toxicity of Chemicals in Food, Consumer Products and the Environment (COT)**

**Updated:** November 2021

**Last meeting:** 26th October 2021

Topics discussed included:

At their October meeting the Committee discussed items including an update on the safety of ginger supplement use in pregnancy, further information on the potential health risks of bamboo food contact materials and part 1 of a discussion paper on the risk assessment of cow's milk in children aged 1 to 5 years, in the context of the previous evaluation of plant based drinks. The Committee also finalised the draft statement on Vitamin D and the potential effects that excess vitamin D intake may have during preconception, pregnancy and lactation and the sub-statement on the potential risk(s) from exposure to microplastics via the oral route.

**Next meeting:** 7th December 2021

**Chair:** Professor Alan Boobis

**Secretariat:** [cot@food.gov.uk](mailto:cot@food.gov.uk)

**Website:** <https://cot.food.gov.uk/>

## **Committee on Carcinogenicity of Chemicals in Food, Consumer Products and the Environment (COC)**

**Updated:** November 2021

**Last meeting:** 18th November 2021

Topics on the agenda included:

Horizon scanning, update to guidance statement on alternatives to the assessment of potential carcinogenicity, presentation on patient derived cell models.

**Next meeting:**

2nd March 2022

**Chair:** Professor David Harrison

**Secretariat:** [COC@phe.gov.uk](mailto:COC@phe.gov.uk)

**Website:**

<https://www.gov.uk/government/groups/committee-on-carcinogenicity-of-chemicals-in-food-consumer-products-and-the-environment-coc>

**The Committee on Mutagenicity of Chemicals in Food, Consumer Products and the Environment (COM)**

**Updated:** October 2021

**Last meeting:** 12th October 2021

Topics discussed included:

- Review of EFSA opinion on titanium dioxide
- Hydroxyanthracene derivatives in supplements
- Horizon scanning
- Draft Annual Report for 2020
- OECD Draft Detailed Review Paper on the Miniaturised Versions of the Bacterial Reverse Gene Mutation Test
- QSAR and Genotoxicity

**Next meeting:** 1 March 2022

**Chair:** Professor Gareth Jenkins

**Secretariat:** [COM@phe.gov.uk](mailto:COM@phe.gov.uk)

**Website:**

<https://www.gov.uk/government/organisations/committee-on-mutagenicity-of-chemicals-in-food-consumer-products-and-the-environment>

## **Scientific Advisory Committee on Nutrition (SACN)**

**Updated:** November 2021

**Last meeting:** 10th November 2021

Nutrition and COVID-19, Feeding young children aged 12-60 months, folic acid and National Diet and Nutrition Survey blood analytes, horizon scanning.

**Next meeting:** 11th March 2022

**Chair:** Professor Ian Young

**Secretariat:** [SACN@phe.gov.uk](mailto:SACN@phe.gov.uk)

**Website:**

<https://www.gov.uk/government/groups/scientific-advisory-committee-on-nutrition>

## **Annex 2: Science Council Observers feedback on last 6 months of SAC attendance**

### **Sandy Thomas - ACSS**

**1) Of primary interest to the Science Council is the work of the ACSS on its Climate Change and Consumer Behaviour (CCCB) project**

This was the main topic of discussion in my catch up with the Deputy Chair Julie Hill in September, and my area of interest in attending part of the ACSS 7th Meeting in June.

The ACSS started this work ahead of the SC, and it has been helpful to share insights and approaches ahead of our own initial steps. ACSS held an expert workshop and undertook an expert survey earlier in the year to identify behaviours that consumers might engage in in response to climate change concerns. It aimed to shape future research and objectives, as well as to focus the working group's attention on the greatest value-added areas of research. The workshop report is a useful document that identifies several of the likely consumer trends in this area. It is worth noting that the FSA had already drafted an initial framework, mapping climate change relevant behaviours against FSA priority areas.

The survey identified inter alia how climate change may lead to:

1. shifts in consumer diets
2. shifts in purchasing preferences
3. behaviours around food waste and food management;
4. unexpected behavioural shifts.

Key contextual trends for the SC's work on net zero include:

1. Adoption of low carbon diets, mainly based on the reduction of meat and dairy products, with a shift towards increased consumption of alternative proteins and meat analogues
2. The avoidance of food waste
3. Increased consumption of alternative packaging or packaging with higher content of recycled materials
4. Increased use of reusable containers in food and drinks
5. Consumption of food with shorter supply chains
6. Increase of food delivery

Importantly, the behavioural change of a rise in sustainable and low carbon diets was identified as potentially posing risks to food safety and food authenticity.

## **2) Assurance**

The ACSS also has a WG on assurance which is of ongoing interest to the SC – Paul Turner engaged with this WG on the SC's WG5.



### **3) Kitchen Life 2**

The working group on Kitchen Life 2 continues to support the cross-cutting, and multi-disciplinary FSA research project

## **Claire Nicholson - ACNFP**

Summary of the issues considered by the ACNFP June 2021 - November 2021

### **1. Allergenicity and novel proteins**

The ACNFP continues to have concerns about novel proteins and allergenicity and whether the list of 14 allergens should be reviewed. Mung Bean protein currently under consideration is a good example; used as an egg substitute it may be useful for egg allergy sufferers and for people following a vegan diet, but legume allergy consumers may suffer adverse reactions if they consume Mung Bean protein. (Further information is being requested.)

### **2. Traditional foods or novel foods?**

A Traditional Food Notification for a type of Duckweed grown in vertical farms raised questions for the ACNFP about whether the proposed processing and plant breeding meant the product no longer resembles the traditional food and should in fact be a novel food application. The application was managed as a traditional food and risk managers based on the advice of the ACNFP and identifying the next steps for the evaluation.

### **3. Supplements - foods or medicines?**

Many applications are for food supplements which could be viewed (and used) more like a medicine than a food. Examples include: CBD oil, Calceidiol and Cetylated Fatty Acid. All benefit from review of potential unintended effects or interactions with other foods and drugs. Better knowledge about how consumers use supplements when not under medical supervision would be useful when assessing these types of application.

### **4. CBD Oil**

There are currently a high volume of CBD applications waiting for consideration by the ACNFP. Work continues to understand the food safety issues in particular the toxicology of CBD and other cannabinoids found in these complex ingredients.

## **5. Gene Editing and Genetic Modification**

The specialist issues arising from GE and GMO applications may require a new sub-group of the ACNFP to help manage workload, but also to ensure specialist expertise is focussed on applications associated with this rapidly changing area of science.

## **Jonathan Wastling - ACMSF**

In the past six months, the Advisory Committee on the Microbiological Safety of Food (ACMSF), its standing sub-committees and *ad-hoc* groups have considered a wide range of both ongoing and new issues which may impact on food safety, including consideration of recent events surrounding food supply chain disruption and food safety.

### **1) The ad-hoc subgroup on toxin-producing Clostridia in food,**

**This** was established on the recommendation of the ACMSF group on Clostridium and vacuum or modified atmosphere packed foods finalised its terms of reference and held some timely discussion considering the possible impact on changes of shelf-life for products that may be driven by the shortage of CO<sub>2</sub> for food packaging. This sub-group also noted that its work should not be dominated by food packaging issues and identified important additional areas for focus.

### **2) Botulism in Cattle, Sheep and Goats**

Work continues on botulism in the form of a literature review on botulism in cattle, sheep and goats which has undergone a number of recent revisions, most recently in October 2021, which members endorsed. A comprehensive set of recommendations have previously been developed by the committee on [botulism in cattle, sheep and goats](#). Members received an update on progress made on the recommendations and highlighted a number of observations for Defra/APHA and the FSA to consider. A particular concern the committee had was that samples collected during clinical investigations were not archived to assist with the

development of further assay systems.

### **3) Epidemiology of Foodborne Infections Group**

Members of ACMSF also considered the activities of the Epidemiology of Foodborne Infections Group. This group is a unique group bringing together human, food and veterinary epidemiological and microbiological information which can be integrated and discussed at UK and country level. Discussion in this group has focussed on topics including the recent significant rise of case norovirus (possibly linked to re-establishment of transmission routes as communities emerge from COVID restrictions). Some useful discussion also centred on the value of epidemiology studies following COVID as a tool to better understand the epidemiology of foodborne pathogens. Consideration was also given to the potential impact from supply chain disruption to the prevalence of food borne pathogens. This group also continued its extensive consideration of the threat posed by Salmonella.

### **4) Foodborne Disease Policy Framework (2021-25)**

Finally, members of the committee considered and endorsed the Foodborne Disease Policy Framework (2021-25). The Foodborne Disease (FBD) Policy Team, working closely with colleagues across the FSA and FSS, have reviewed the FSA's approach for the reduction of foodborne pathogens. The resulting framework sets out a series of goals and approaches to address concerns about foodborne pathogens to help guide a consistent approach to foodborne pathogens, rather than considering pathogens on a reactive basis. The ACMSF noted that the Foodborne Disease Policy Framework takes a holistic and active approach to bring together all the foodborne disease work activities across the FSA into one framework.

## **John O'Brien - COT**

### **1) UK Roadmap for the Development, Validation, and Regulatory Acceptance of New Approach Methodologies (NAMs) in Chemical Risk Assessment**

One of the milestones of COT in 2021 was the publication of a UK Roadmap for the Development, Validation, and Regulatory Acceptance of New Approach

## Methodologies (NAMs) in Chemical Risk Assessment

One of the milestones of COT in 2021 was the publication of a UK Roadmap for the Development, Validation, and Regulatory Acceptance of New Approach Methodologies (NAMs) in Chemical Risk Assessment. This has been the subject of discussion in COT, COM, and COC. A dedicated workshop was held in October. A wider, but related concern is the need for international harmonization of new approaches. Attention was drawn to the APCRA Initiative (Accelerating the Pace of Chemical Risk Assessment) initially convened by US EPA but now an international activity.

### **2) COT and SACN joint working group on plant-based drinks**

COT and SACN have continued working together and have a joint working group on plant-based drinks looking at safety and nutritional aspects. SACN has referred a number of topics to COT for advice. These include:

- Potential effects of excess vitamin D intake during preconception, pregnancy and lactation.
- Potential risks from contaminants in the diets of infants
- Discussion paper on risk assessment of cow's milk in the context of the evaluation of safety considerations of plant-based drinks. Any comparison requires evaluation of a broad number of factors including veterinary medicines, natural and anthropogenic contaminants.

### **3) Dietary Microplastics**

Potential risks of dietary microplastics has been discussed in detail by the COT. The topic brings many challenges not least of which is characterization of the materials and calculation of dose.

### **4) Bamboo based food contact materials**

Food contact materials based on bamboo were discussed by COT. The main concern currently is the potential for migration of melamine and/or formaldehyde from such bio-based materials (e.g. utensils, kitchenware and coffee cups). The topic is complex and entails both potential non-compliance/risk management issues as well as generating discussion about the most appropriate parameters for safety evaluation. The number of bio-based food contact materials on the market is increasing. More data on the properties/composition of such materials would be of value.

## **5) Ginger supplements**

Finally, the safety of the use of ginger supplements in pregnancy was considered by COT. A major challenge is the number of different type of products (different extracts/preparations with different chemical composition delivering different doses of active constituents). Human safety data are quite limited so risk assessment is largely dependent on animal data.

<https://cot.food.gov.uk/2021-statementsandpositionpapers>

# **John O'Brien - COM and COC**

## **COM**

### **1. Miniaturized bacterial reverse gene mutation tests**

The COM considered the OECD Review on miniaturized versions of bacterial reverse gene mutation tests and noted that proper test validation is key otherwise it is difficult to justify test replacement/substitution.

### **2. QSAR models**

The committee also worked on its guidance statement on the use of Quantitative structure-activity relationship (QSAR) models to predict genotoxicity.

### **3. Regulatory questions**

The committee responded to a number of specific requests for advice from FSA triggered by regulatory questions.

<https://www.gov.uk/government/organisations/committee-on-mutagenicity-of-chemicals-in-food-consumer-products-and-the-environment>

## **COC**

### **1. Office for Product Safety & Standards (OPSS)**

COT, COM and COC will liaise closely with the newly established Office for Product Safety & Standards (OPSS; under the auspices of BEIS) Advisory Group on

Chemical Safety of Non-Food and Non-Medicinal Consumer Products (SAG-CS).

## **2. Study of epidemiological and toxicological evidence in risk assessments**

The July COC meeting discussed a draft report on the synthesis of epidemiological and toxicological evidence in risk assessments. This document is supported by case studies on caffeine, cadmium, tropane alkaloids, all highly relevant to the food safety context.

## **3. Alternatives to the 2-year Carcinogenicity Bioassay**

The meeting discussed updates to the Guidance Statement G07 Alternatives to the 2-year Carcinogenicity Bioassay. The draft guidance statement is a work in progress but will incorporate new tools such as transgenic models, “omics” technologies, PBPK and QiViVE and tools considered in the Toxicity Testing in the 21st Century report.

## **4. Carcinogenic hazard identification and characterization for animal carcinogenicity studies**

An updated guidance statement (G03) is being prepared on carcinogenic hazard identification and characterization in the context of the conduct and interpretation of animal carcinogenicity studies. The challenges of appropriate dose selection were discussed which is an issue cutting across different toxicity studies. The assessment of the quality of carcinogenicity studies was flagged as a need.

## **5. The use of Biomarkers in Carcinogenic Risk Assessment**

A second draft of the Guidance Statement G04 on The use of Biomarkers in Carcinogenic Risk Assessment was discussed and it was noted that WGS has or is replacing GWAS in research.

<https://www.gov.uk/government/groups/committee-on-carcinogenicity-of-chemicals-in-food-consumer-products-and-the-environment-coc>

# **Annex 3: 6-12 month Forward Schedule for Meetings of Scientific Advisory Committees (SACS) attended by Science Council**

Dates scheduled as of 30 November 2021

## **Science Council (SC)**

- 23rd June 2022
- 8th December 2022

**Advisory Committee on Social Science (ACSS)**, Prof Sandy Thomas (observer)

- 26th January 2022

**The Committee on Toxicity of Chemicals in Food, Consumer Products and the Environment (COT)**, Prof John O'Brien (observer)

- 7th December 2021

**Committee on Carcinogenicity of Chemicals in Food, Consumer Products and the Environment (COC)**, Prof John O'Brien (observer)

- 21 July 2022
- 17 November 2022

**Committee on Mutagenicity of Chemicals in Food, Consumer Products and the Environment (COM)**, Prof John O'Brien (observer)

- 9 June 2022
- 13 October 2022

**Advisory Committee on Animal Feed (ACAF)**, Prof Sarah O'Brien (observer)

- Under process of review. No meetings currently planned for 2022

**Advisory Committee on Novel Foods and Processes (ACNFP)**, Claire Nicholson (observer)

- 2nd February 2022
- 30 March 2022
- 8th June 2022

**Advisory Committee on Microbiological Safety in Food (ACMSF)**, Prof Jonathan Wastling (observer)

- February/March 2022 (Date to be confirmed)
- 23rd June 2022
- 20th October 2022