Minutes

Advisory Committee on Novel Foods and Process (ACNFP). Subcommittee on Cell Cultivated Products (CCP). Minutes of the 1st Meeting held on the 19th of June 2025

These minutes are subject to confirmation by the Subcommittee.

Members are required to declare any personal interest in matters under discussion; where Members have a particularly close association with any item, the Chairman will limit their involvement in the discussion. In cases where an item is to be discussed in their absence, a Member may make a statement before leaving.

Minutes of the 1st meeting of the Cell Cultivated Products (CCP) subcommittee of the Advisory Committee on Novel Foods and Processes, held on 19th June 2025 as a hybrid meeting.

As part of the CCP Sandbox programme, the first ACNFP CCP subcommittee convened to explore allergenicity and nutritional considerations in cell cultivated products.

The meeting brought together committee members, invited experts, and FSA representatives to provide technical input into the development of hazard guidance for CCP industries.

Attendance

Committee Chair

Professor Huw D. Jones

Committee Members

Professor Hans Verhagen

Mrs Alison Austin

Professor Ramiro Alberio

Invited Experts

Professor Susan Fairweather-Tait

Dr Elizabeth Lund

Professor Paul Haggarty

Dr Hazel Gowland

Dr Alan Hernandez

Secretariat

Dr Daniel Lloyd, Technical Secretariat

Mrs Jodie Towns, Science Secretariat

Dr Swati Arya, Science Secretariat

Mrs Carol Scott, Administrative Secretariat

Miss Victoria Balch, Administrative Secretariat

Observers FSA

Mrs Ruth Willis, Head Regulated Products Risk

Assessment; Technical Secretary ACNFP

Dr Erin Cullen, Science Secretariat

Miss Jenny Rees, Science Secretariat

Dr Lindsay Holden, Team Leader, Regulated Products

1. Apologies and Announcements

N/A

2. Welcome

The chair welcomed the members, observers from the FSA and the Secretariat team to the first 1st ACNFP CCP Subcommittee meeting.

3. Matters Arising

ACNFP/CCP/1/MA

N/A

4. Allergenicity

ACNFP/CCP/1/02

The FSA representatives gave the subcommittee an overview of the current regulations for allergen assessment in novel foods within the UK, EU and other international regulators. Discussions focused on potential risks associated with residual cell culture ingredients, such as growth media and scaffolds, particularly those derived from known allergens like soy, gluten, and collagen. The group considered how processing may alter allergenic potential, citing examples such as wheat isolates that can sometimes trigger unexpected reactions.

Genetic drift in cell cultures was discussed as a potential factor influencing allergenicity, with emphasis on the importance of demonstrating production stability. The use of bioinformatics was supported for targeted allergen analysis.

The subcommittee built on their collective knowledge and feedback from sandbox workshops to answer the questions and provide insight into the development of the allergenicity guidance being produced by the FSA. The members recommended that the applicants will be expected to demonstrate the absence of allergens listed in Regulation (EU) 1169/2011 Annex II in the final product using validated analytical methods. In addition, the allergenic potential of ingredients not covered by Annex II must be assessed and supported with appropriate evidence. Applicants should monitor allergy data to inform this

evidence. Where allergenic components have been modified (such as through isolation or processing) any changes to their risk profile must be clearly characterised. The subcommittee emphasised the importance of evaluating how allergenic proteins behave under post-production conditions, including heat, pH, and digestion, to understand their stability and potential impact. A tiered approach to allergenicity risk assessment was recommended, aligned with existing regulatory frameworks such as Regulation (EU) 2015/2283 and the FSA's precision breeding guidance. Bioinformatics assessments should be performed, focusing on known allergen epitopes and DNA changes versus the parent cell line. Finally, the subcommittee agreed that post-market monitoring cannot be a substitute for robust pre-market risk evaluation.

5. Nutrition

ACNFP/CCP/1/03

The subcommittee reviewed the nutritional assessment requirements under novel food regulations, focusing on how they apply to cell-cultivated products (CCPs). Discussions centred on the nutritional composition of CCPs, including the bioavailability of key nutrients and the potential impact of anti-nutritional factors.

One of the key challenges identified was defining representative batches in continuous production systems. Members agreed that batch testing should be justified on a case-by-case basis, allowing flexibility to accommodate different production methods and timelines.

Committee members emphasised the importance of using appropriate comparators when evaluating CCPs against conventional cell-cultivated products, considering the intended use of the final product. Nutritional analysis should prioritise key nutrients relevant to the UK diet, such as protein, fat, vitamins, and minerals. The subcommittee also considered the use of DIAAS and in vitro methods for assessing protein digestibility and bioavailability, noting the need for robust and representative methodologies.

To support the development of FSA nutrition guidance, the subcommittee advise that applicants should provide comprehensive amino acid and fatty acid profiles, including data on essential nutrients such as vitamin B12, iron, zinc and vitamins A and D. They discussed that the justification for batch selection and testing methodology will be required, and nutritional

comparisons should reference either the cells of origin or relevant literature. It was agreed that analytical methods must be comparable to those used for conventional foods, and compositional data should be assessed prior to product formulation. The subcommittee recommended that applicants are expected to conduct literature reviews on micronutrient bioavailability in traditional meat and clearly define the intended use categories for their CCPs. In addition to the technical considerations discussed, the subcommittee also explored broader industry challenges related to product labelling and terminology. Members emphasised the importance of using accurate and transparent product descriptions to ensure consumer safety and foster trust in cell-cultivated products.

6. Date of next meeting

The 2nd ACNFP CCP subcommittee will be held on 18th August 2025 and will be on the topic of CCP production.