

Remit

The Advisory Committee on Novel Foods and Processes is an independent body of experts whose remit is:

'to advise Health and Agriculture Ministers of Great Britain and the Heads of the Departments of Health and Social Services and Agriculture for Northern Ireland on any matters relating to the irradiation of food or to the manufacture of novel foods or foods produced by novel processes having regard where appropriate to the views of relevant expert bodies'.

The Secretariat is provided jointly by officials of the Department of Health and the Ministry of Agriculture, Fisheries and Food. As well as formal meetings, the Committee organises workshops on specific topics related to its remit.

The interaction between the ACNFP and other independent advisory committees is outlined in Figures 1 and 2.

Membership and Members' Interests

The membership of the Committee provides a wide range of expertise in fields of relevance in the assessment of novel foods and processes. A list of the membership during 1995, together with the names of assessors and the secretariat may be found overleaf.

In common with other independent advisory committees, the ACNFP is publishing a list of its members' commercial interests. These have been divided into different categories relating to the type of interest:

- | | |
|---------------|--|
| Personal:- | a) direct employment or consultancy; |
| | b) occasional commissions; |
| | c) shareholdings. |
| Non-personal: | a) fellowships; |
| | b) support which does not benefit the member directly e.g. studentships. |

Details of the interests held by members during 1995 can be found on pages 28-30 .

A copy of the code of conduct for ACNFP members can be found on pages 31-35.

MEMBERSHIP OF THE COMMITTEE DURING 1995

Chairman

Professor Derek C Burke, CBE, BSc, PhD, HonLLD, HonScD, DL
Former Vice-Chancellor, University of East Anglia (retired 30th September 1995)

Members

Professor G E Adams, BSc, PhD, DSc, FACR
Director of Medical Research Council Radiobiology Unit, Chilton, Oxfordshire

Professor P J Aggett, MSc, MB, ChB, FRCP (Lond, Edin & Glasg), DCH
Head, The Department of Nutrition, Diet and Health, Institute of Food Research,
Norwich

Professor T Atkinson, BSc, PhD
Former Deputy Director of PHLS Centre for Applied Microbiology and Research,
Porton Down, Wiltshire

Professor H M Dick*, MD, FIBiol, FRCP, FRCPATH, FRSE
Department of Medical Microbiology, Ninewells Hospital and Medical School,
Dundee

Dr M J Gasson, BSc, PhD
Head of Genetics and Microbiology Department, Institute of Food Research,
Norwich

Professor W P T James, CBE, MA, MD, DSc, FRCP, FRCP (Edin), FRSE
Director of the Rowett Research Institute, Aberdeen

Professor D A Ledward, MSc, PhD, FIFST
Professor of Food Science, University of Reading

Professor B J Miflin, BSc, MS, PhD
Director of Research, Institute of Arable Crops Research, Rothamsted Experimental
Station

Mrs H Millar, MA, FRSA
Adult Education Department, University of Glasgow

Professor B E B Moseley, OBE, BSc, PhD
Retired Head of the Institute of Food Research
Reading Laboratory

* Due to ill health, Professor Dick was unable to attend any of the 1995 ACNFP meetings. In her absence, microbiological advice was provided by Dr N Simmons.

Reverend J C Polkinghorne, MA, PhD, ScD, FRS
President of Queens' College, Cambridge

Dr P J Rodgers, MA, DPhil
Zeneca Bio Products, PO Box 2, Billingham, Cleveland

Professor T A B Sanders, BSc, PhD
Head of Department of Nutrition and Dietetics, Kings College, London

Dr N A Simmons FRC Path, FIFST
Emeritus Consultant in Microbiology
Guy's and St Thomas' Hospital Trust
Honorary Senior Lecturer in Microbiology St. Bartholomew's and the Royal London
School of Medicine and Dentistry.

Professor J E Smith, BSc, MSc, PhD, DSc, FIBiol, FRSE
Head of the Applied Microbiology Division, Department of Bioscience and
Biotechnology, University of Strathclyde

Professor R Walker, PhD, CChem, FRSC, FIFST
Professor of Food Science, University of Surrey

Professor H F Woods, BSc, BM, BCh, DPhil, FFPM, Hon FFOM, FRCP
(Lond & Edin)
Head of The Department of Medicine and Pharmacology, Royal Hallamshire
Hospital, Sheffield

Assessors

Dr F Amijee	Department of the Environment
Dr P Baker	Laboratory of the Government Chemist, for DTI
Dr J Bell	Ministry of Agriculture, Fisheries and Food
Dr M Bale	Health and Safety Executive
Professor A Gilmour	Department of Agriculture, Northern Ireland
Mr I Jackson	Welsh Office
Mr I Strachen	Scottish Office, Agriculture and Fisheries Department

Secretariat

MAFF Secretary	Mr N Tomlinson, Ministry of Agriculture, Fisheries and Food
DH Secretary	Mrs S Hattersley, Department of Health

Member	Personal Interest		Non-Personal Interest	
	Company	Interest	Company	Interest
Prof G E Adams	None		None	
Prof P J Aggett	None		Nestec, Milupa, Nutricia, Wyeth FDF	Departmental Commissioned Research
Prof T Atkinson	None		None	
Prof D C Burke	None		None	
Prof H M Dick (Prof Dick did not attend any of the 1995 meetings)	Scottish Crop Research Institute	Board Member	Various	Quality Assurance Work
Dr M J Gasson	None		None	
Prof W P T James	None		Palm Oil Inst. of Malaysia.	Studentships
Prof D A Ledward	None		Dalgety plc Various	Chair at Reading part funded by Dalgety Departmental teaching and research funded by various food companies
Prof B J Mifflin	CIBA seeds	Ex-employee, shareholder, consultant		
Mrs H Millar	Unilever	Shareholder	None	
Prof B E B Moseley	None		None	

Member	Company	Interest	Company	Interest
Rev J Polkinghorne	None		None	
Dr P J Rodgers	Zeneca Ltd	Salary and Shareholder	None	
Prof T Sanders	Nutrasweet Seven Seas Ltd Coca-cola ILSI Europe	Consultancy Consultancy Consultancy Lapsed Consultancy	Unilever	Free supply of oils and fats for research purposes
Dr N A Simmons	Worshipful Company of Fishmongers Waitrose Ltd Marks and Spencer plc Food Micro Ltd British Medical International Infection Management Ltd McDonalds	Bacteriologist Consultant and Adviser Consultant and Adviser Director Consultant and Shareholder Consultant	None	
Prof J E Smith	Nestlé (Switzerland), Rhône Poulenc Diagnostics	Consultancy Royalty Agreement	Robertson Trust, Cow & Gate, Rhône Poulenc Diagnostics	Staff Support Research Research
Prof R Walker	Cadbury Beverages, Proctor and Gamble, IDV Ltd, Food Safety Advisory Centre, Coffee News Information Service, RHM, Tate and Lyle	Consultancy Consultancy Consultancy Consultancy Consultancy Consultancy Consultancy Lapsed Consultancy Lapsed	Nestlé Ltd	Research

Non-Personal Interest

Personal Interest

Member	Company	Interest	Company	Interest
Prof H F Woods	Cadbury Schweppes, Edinburgh Investment Trust, Foreign & Colonial Investment Trust, Hanson Trust, Smith & Nephew	Shareholder Shareholder Shareholder Shareholder Shareholder	Wide range of national and international food and chemical companies.	Dean of the University of Sheffield Faculty of Medicine and Dentistry, which has extensive activity in teaching and research in nutrition and toxicology and in topics related to, and supported by, many companies in the food and chemical industry. Trustee of the Hallamshire Therapeutic Research Trust Ltd, Harry Bottom Charitable Trust and Special Trustees for the former United Sheffield Hospitals.

¹ Professor Mifflin declared an interest in the submission on the GM maize modified for insect resistance and was not present when this item was discussed.

² Dr Rodgers declared an interest in the submissions on tomato paste from genetically modified tomatoes and long-chain polyunsaturated fatty acids (LCPFA) for use in infant formulae. He was not present when the LCPFA submission was discussed.

REGISTER OF INTERESTS: A CODE OF CONDUCT FOR MEMBERS OF THE ADVISORY COMMITTEE ON NOVEL FOODS AND PROCESSES

Introduction

1. This code of conduct guides members of the Advisory Committee on Novel Foods and Processes as to the circumstances in which they should declare an interest in the food industry.
2. The advice of the Advisory Committee concerns matters which are connected with the food industry and it is therefore desirable that its members and those of its support groups should have a good understanding of the work of the industry. It is also desirable that some members should have practical experience of the scientific problems of product development and safety evaluation. The food industry relies heavily on the advice of a wide range of specialists including scientists outside the industry in, for example, the universities. To avoid any public concern that commercial interests might affect the advice of the Committee, Ministers have decided that the arrangements which govern relationships between members and the food industry and information on significant and relevant interests should be on public record.

Definitions

3. In this code, 'food industry' means:
 - (i) companies, partnerships or individuals who are involved with the production, manufacture, packaging, sale or supply of food or food processes, subject to the Food Safety Act 1990;
 - (ii) trade associations representing companies involved with some products; and,
 - (iii) companies, partnerships or individuals who are directly concerned with research, development or marketing of a food product which is being considered by the ACNFP.
4. In this code, the Secretariat means the Secretariat of the ACNFP.

Different types of interest

5. The following is intended as a guide to the kinds of interests which should be declared. Where a member is uncertain as to whether an interest should be declared he should seek guidance from the Committee's Secretariat or, where it may concern a particular product which is to be considered at a meeting, from the Chairman at that meeting. **If a member has an interest not specified in these notes but which he believes could be regarded as influencing his advice, he should declare it.** However, neither the members nor the Secretariat are under an obligation to search out links between one company and another, for example where a company with which the member is connected has an interest in a food industry company of which the member is not aware and could not reasonably be expected to be aware.

Personal Interests

6. A personal interest involves payment to the member personally. The main examples are:

- (i) *Consultancies*: any consultancy, directorship, position in or work for the food industry which attracts regular or occasional payments in cash or kind.
- (ii) *Fee-Paid Work*: any work commissioned by the food industry for which the member is paid in cash or kind.
- (iii) *Shareholdings*: any shareholding in or other beneficial interest in shares of the food industry. This does not include shareholdings through unit trusts or similar arrangements where the member has no influence on financial management.

Non-Personal Interests

7. A non-personal interest involves payment which benefits an organisation or department for which a member is responsible, but is not received by the member personally. The main examples are:

- (i) *Fellowships*: the holding of a fellowship endowed by the food industry.
- (ii) *Support by the Food Industry*: any payment, other support or sponsorship by the food industry which does not convey any pecuniary or material benefit to a member personally but which does benefit his position or department, eg:
 - (a) a grant from a company for the running of a unit or department for which a member is responsible;
 - (b) a grant or fellowship or other payment to sponsor a post or a member of staff in the unit for which a member is responsible. This does not include financial assistance for students; and,
 - (c) the commissioning of research or other work by, or advice from, staff who work in a unit for which a member is responsible.

Members are under no obligation to seek out knowledge of work done for or on behalf of the food industry by departments for which they are responsible, if they would not normally expect to be informed. Where members are responsible for organisations which receive funds from a very large number of companies involved in the food industry, the Secretariat can agree with them a summary of non-personal interests rather than draw up a long list of companies.

- (iii) *Trusteeships*: any investment in the food industry held by a charity for which an ACNFP member is a trustee.

Where a member is a trustee of a charity with investments in the food industry, the Secretariat can agree with the member a general declaration to cover this interest rather than draw up a detailed portfolio.

Contractual obligations of confidentiality

8. Some members of the Committee may, **at the time of adoption of this Code** or (in the case of new members) on their joining the Committee, be bound by the terms of a contract which requires them to keep the fact of the contractual arrangement confidential. As a transitional measure any member so affected shall seek to agree an entry for the public register with the other party. If such agreement does not prove possible, the member shall seek a waiver permitting him to disclose his interest, in confidence, to the Chairman and the Secretariat. The Secretariat will maintain a confidential register of such disclosures which will not form part of the public record.

9. On adoption of this Code members shall not enter into new contractual obligations which would inhibit their ability to declare a relevant interest.

Declaration of interests to the Secretariat

10. Members of the Committee should inform the Secretariat **in writing** when they are appointed of their **current personal and non-personal interests**, including the principal position held. Only the name of the company and the nature of the interest is required, the amount of any salary, fees, shareholding, etc need not be disclosed to the Secretariat. An interest is current if the member has an on-going financial involvement with the food industry e.g. if he holds shares in a food company, if he is in the consultancy contract with the food industry, or if he is in the process of carrying out work for the food industry. Members are asked to inform the Secretariat at the time of any change of their **personal interest**, and will be invited to complete a declaration form once a year. It would be sufficient if changes in non-personal interests are reported in the annual declaration form following the change. (Non-personal interests involving less than £1000 from a particular company in the previous year need not be declared to the Secretariat.)

Special position of Chairman

11. It is not appropriate for the Chairman of the Advisory Committee on Novel Foods and Processes to have any current personal interest in the food industry.

Declaration of interests at meetings and participation by members

12. Members are required to declare relevant interests at Committee meetings, and to state whether they are personal or non-personal interests and whether they are specific to the product under consideration or non-specific:

- (i) A member must declare a **personal specific interest** if he has **at any time** worked on the product or process under consideration and has personally received payment for that work, in any form, from the food industry. The member shall take no part in the proceedings as they relate to the product or process, except that he may at the Chairman's discretion answer questions from other members. If the interest is no longer current, the member should declare it as a **lapsed personal specific interest**;

- (ii) A member must declare a **personal non-specific interest** if he has a **current personal interest** in the food company concerned which does not relate specifically to the product under discussion. The member shall take no part in the proceedings as they relate to the product, except that he may at the Chairman's discretion answer questions from other members;
- (iii) A member must declare a **non-personal specific interest** if he is aware that the department for which he is responsible has at any time worked on the product or process but the member has not personally received payment in any form from the food industry for the work done. The member may take part in the proceedings unless he has personal knowledge of the product or process through his own work or through direct supervision of other people's work, in which case he should declare this and not take part in the proceedings (except to answer questions);
- (iv) There is no need for members to declare **non-personal non-specific interests** (i.e. if a member is aware that the department for which is responsible is currently receiving payment from the food industry company concerned which does not relate specifically to the product or process under discussion). If, exceptionally, a member feels such an interest might be thought to influence his advice, he should seek guidance from the Chairman on whether to draw the facts to the attention of other members.

13. The examples, of personal, non-personal and current interests given in the previous paragraphs should be read in the context of paragraphs 6, 7 and 10. 'Taking part in the proceedings' includes both speaking and, if necessary, voting. A member who is in any doubt as to whether he has an interest which should be declared, or whether he should take part in the proceedings, should ask the Chairman for guidance. The Chairman has the power to determine whether or not a member with an interest shall take part in the proceedings.

14. If a member is aware that a product or process under consideration is or may become a competitor of a product or process manufactured, sold or supplied by a company in which the member has a **current personal interest**, he should declare his interest in the company marketing the rival product or process. The member should seek the Chairman's guidance on whether he should take part in the proceedings.

Register of interests

15. A record is kept by the Secretariat of:

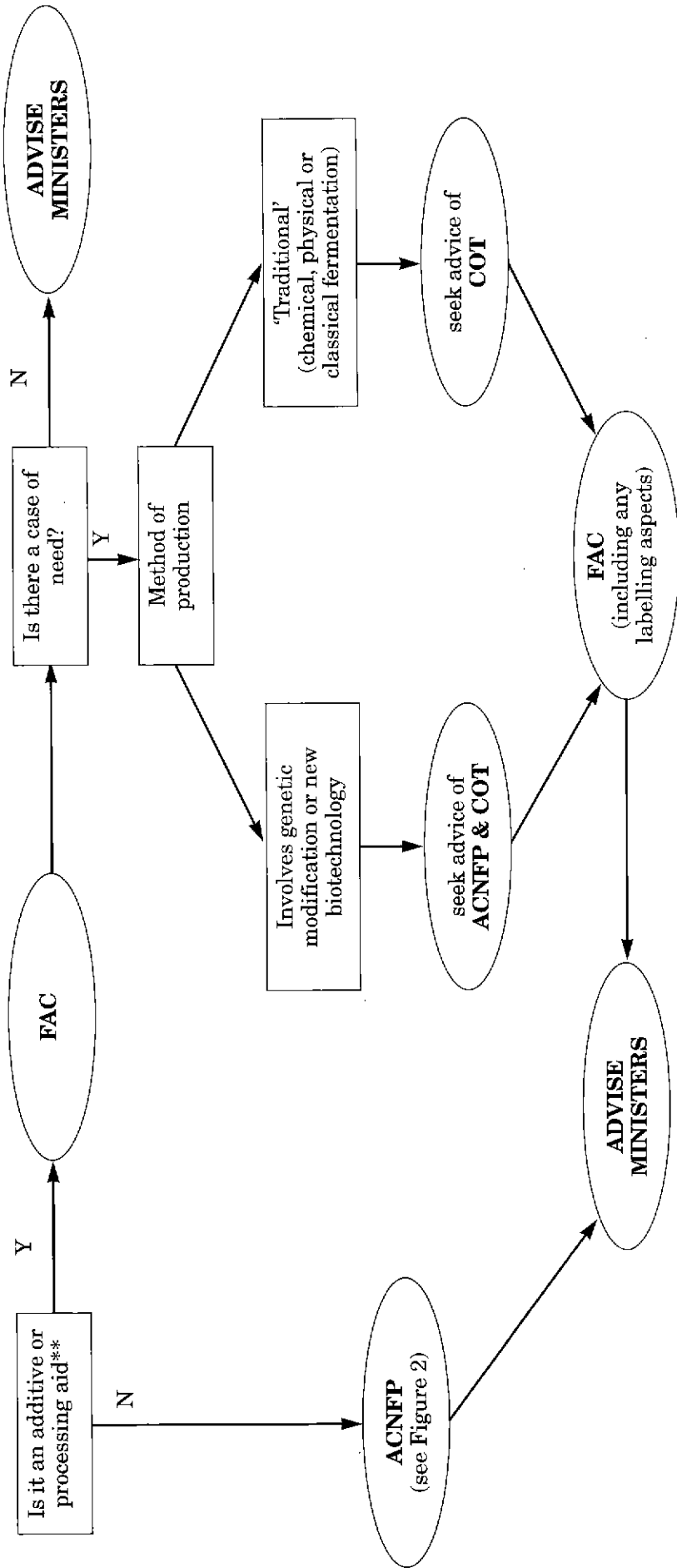
- (i) names of member's who have declared interests to the Secretariat on appointment, as an interest first arises or through the annual declaration, and the nature of the interest; and,
- (ii) names of members who have declared interests at meetings of the Committee, giving dates, names of relevant products and companies, details of the interest declared and whether the member took part in the proceedings.

Publication

16. Information about interests declared by members to the Secretariat will be published each year in the Annual Report of the ACNFP.

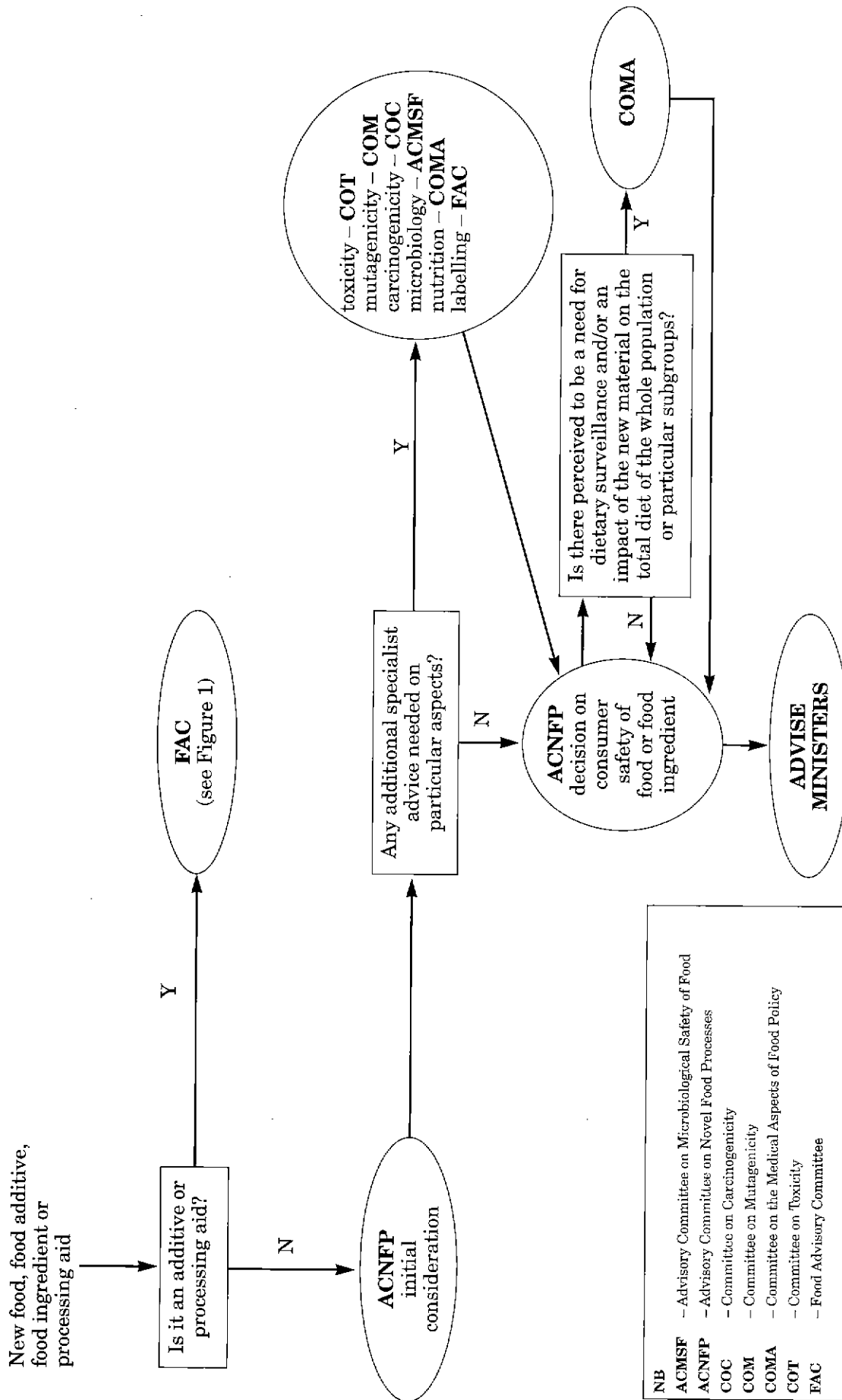
Figure 1: Decision Tree for allocation of Submissions to ACNFP or FAC.

New food, food additive,
food ingredient or
processing aid**



* If a medicinal licence has been applied for, or any medical claims are made for the product, then the Medicines Control Agency will need to be consulted.
** Using definitions from Council Directive 89/107/EEC of 21/12/88 - Food Additives Authorised for Use in Foodstuffs Intended for Human Consumption.

Figure 2: Relationship of ACNFP with other Expert Committees involved in the assessment of food safety.



- NB**
- ACMSF - Advisory Committee on Microbiological Safety of Food
 - ACNFP - Advisory Committee on Novel Food Processes
 - COC - Committee on Carcinogenicity
 - COM - Committee on Mutagenicity
 - COMA - Committee on the Medical Aspects of Food Policy
 - COT - Committee on Toxicity
 - FAC - Food Advisory Committee

APPENDIX II

ACNFP REPORT ON *ENTEROCOCCUS FAECIUM*

INTRODUCTION

1. During 1995, the Committee considered a submission⁽¹⁾ relating to the food use as a *starter culture** of *Enterococcus faecium*, strain K77D, for use in the production of cultured milk products.
2. The marketing company, MD Foods plc, had already received food safety clearance for the use of this organism in Denmark and, under current EC legislation, was therefore able to market such products legally in all other Member States. Nevertheless, the Company approached the UK authorities and requested evaluation of the food safety of *E. faecium* strain K77D by the ACNFP under the present UK voluntary scheme for novel foods and processes.
3. The question of any claims made for food products produced using *E. faecium* K77D is outside the remit of the ACNFP, but it was noted that any such claims would need to comply with existing EC legislation in this area.
4. This is the second starter culture to be considered by the ACNFP, which previously cleared the use of *Lactobacillus GG* in 1993.⁽²⁾ The Committee would wish to be kept informed of any other similar developments.

PRODUCT DESCRIPTION

5. This *E. faecium* organism was originally isolated from the intestinal flora of elderly people in Abkhazia, in the former USSR, and the particular strain submitted, K77D, was selected from these isolates. This strain has been characterised and deposited in the Russian National Collection of Industrial Micro-organisms under number CPM V-2897. It is also being deposited in the National Collection of Industrial and Marine Bacteria under 'safe deposit' for possible future reference purposes.

USE

6. *Enterococcus faecium* is intended to be used in the production of cultured milk products at levels comparable to traditional starter cultures (the level in the fresh cultured milk product is approximately 2×10^8 colony-forming units/ml). Such products have been available in Denmark for approximately two years.

SAFETY ASSESSMENT

7. This organism exits from the ACNFP's revised decision tree at point E and information was provided on aspects relevant to such an exit point. The Committee's safety evaluation concentrated particularly on the history and identification of this particular strain of *Enterococcus faecium* and the specification and quality control criteria used to ensure a consistent product.

* Technical terms not explained in the body of the report are italicized where they appear for the first time and are explained in the glossary; explanations are used in the context of the report and should not be taken as general definitions.

History and identification of the organism

8. *E. faecium* strain K77D was selected from intestinal flora isolates from people in Abkhazia. This strain is generally sensitive to antibiotics such as ampicillin, vancomycin and gentamicin, but, in common with other *enterococci*, it is resistant to the quinolone antibiotics, such as enrofloxacin and ciprofloxacin.

9. The Committee is aware of increasing numbers of cases of infection in hospitals with strains of *Enterococcus faecium* that are resistant to antibiotics, especially vancomycin. Information was provided from PCR analyses to demonstrate that this K77D strain does not contain the *VanA*, *VanB* or *VanC* type resistance to vancomycin.

10. The Company has provided information to confirm the antibiotic sensitivity of this K77D strain of *Enterococcus faecium* and such tests are included in the specification for this organism and are applied to each production batch before use. Random Amplified Polymorphic DNA (RAPD) analyses – DNA fingerprinting – are also performed regularly to ensure the stability of the strain before use.

11. As mentioned above, the K77D strain of *Enterococcus faecium* has been characterised and deposited in the Russian National Collection of Industrial Micro-organisms under the number CMPM V-2897, and is being deposited in the National Collection of Industrial and Marine Bacteria.

Human safety information

12. Evidence was provided to demonstrate the lack of pathogenicity of this K77D strain of *Enterococcus faecium* and the Committee was further reassured by evidence that the organism does not exhibit beta-haemolytic activity. In addition, the Committee considered data from a six-week clinical study in volunteers with cultured milk products made with this organism. The studies were designed particularly to investigate possible effects on blood cholesterol levels; no adverse effects were observed in any of the parameters monitored. Furthermore, cultured milk products made with this organism have been marketed in Denmark since 1993, and this has not been associated with any increase in reported human infections with *Enterococcus faecium* in that country.

Specification

13. Data have been provided describing the general method used to produce the freeze-dried *Enterococcus faecium* starter culture and MD Foods has provided detailed information relating to the quality control checks that it applies to the starter culture used. These checks form part of the specification for this organism – see Annex I.

Strain stability

14. Evidence from RAPD analyses was provided to demonstrate the stability of this K77D strain after extended culture time in the production of cultured milk products.

DISCUSSION

15. The Committee welcomed the decision of MD Foods to submit this organism for evaluation under the UK's present voluntary scheme for novel foods and processes, despite the fact that it has already been granted clearance in another EC Member State.

16. In view of the increasing numbers of cases in hospitals of infections with vanomycin-resistant strains of *Enterococcus faecium*, the Committee was particularly reassured by the information provided that demonstrated the sensitivity of this particular strain to a range of antibiotics, and the evidence that this strain does not contain the VanA, VanB and VanC type resistance to vancomycin.

17. The Committee was satisfied that this organism had been fully characterised, and noted that it had already been deposited in a reference culture collection in Russia and was being deposited in similar reference culture collection in Europe.

18. The Committee noted that the specification for this starter culture includes a number of quality control checks that are applied to ensure quality and consistency, including tests for antibiotic sensitivity and DNA fingerprinting.

CONCLUSION

19. The Committee concluded that *Enterococcus faecium* strain K77D is acceptable for use as a starter culture for the production of cultured milk products, provided that it complies with specification given in Annex I. Any claims made for such cultured milk products will need to comply with existing EC and UK legislation on medicinal and health claims for foods.

REFERENCES

1. Submission from MD Foods plc dated 31st January 1995, supplemented by additional information provided on 27th April 1995, 10th July 1995 and 23rd November 1995. This submission has been deposited in the British Library, identified as BL SUP 11099.
2. Advisory Committee on Novel Foods and Processes. Annual Report 1993. Department of Health and Ministry of Agriculture, Fisheries and Food 1994.

GLOSSARY

Enterococci: A group of bacteria commonly found in the intestinal tracts of animals and man.

DNA fingerprinting/RAPD analyses: A series of analyses in which DNA samples from an organism are broken into fragments, which are then amplified using PCR (see below), and separated to give characteristic patterns which are unique to each particular organism and can be used as a method of identification.

Polymerase chain reaction (PCR): A sensitive method used to amplify a specific segment of DNA.

Safe deposit: A method of housing strains, or collections of strains without formal deposition or cataloguing within a recognised culture repository. The strains remain the sole property of the depositor but could be made available for possible future reference purposes.

Starter culture: A product containing live micro-organisms often produced in a laboratory, which is used to initiate a commercial fermentation process.

VanA, VanB and VanC: Groups of genes which each confer particular mechanisms for resistance to the antibiotic vancomycin.

SPECIFICATION

Description of the Causido culture

INTRODUCTION

The 'Causido' culture is a lyophilized dry bacteria concentrate composed of two strains of *Streptococcus thermophilus* and one strain of *E. faecium* (K77D).

These strains are selected with respect to antagonistic activity related to pathogenic and potentially pathogenic microflora of the gastrointestinal tract as well as their ability to grow in milk.

The 'Causido' culture is used as starter culture for the fermented milk product 'Gaio'.

The culture is manufactured by the:

Ukrainian Dairy and Meat Technological Institute
M. Raskova Street 4a
Kiev 253660
Ukraine

The single strains are deposited at the:

Russian National Collection of Industrial Micro-organisms
1 Dorozhny proezd 1
113545 Moscow
Russia

Microbiological purity

Total amount of viable cells of LAB: $2 \times 10^{10}/g$
Enterococcus faecium: $1 \times 10^{10}/g$ (min.)
Aerobic heat resistant spores: $< 100/g$
Yeast and mould: $< 1/g$
Coliforms: $< 1/g$
Staphylococcus aureus: $< 1/g$
Salmonella: $< 1/25g$
Listeria: $< 1/25 g$

Antibiotic sensitivity: Vancomycin: Sensitive
(Internal control) Gentamycin: Sensitive
Ampicillin: Sensitive

Every fifth delivery is checked by the National Veterinary Laboratory, Copenhagen.

RAPD analyses: Are made on every fifth delivery (two times a year). The RAPD analyses are performed with six primers to ensure the stability of the strain *E. faecium* K77D.

Identification of *E. faecium* K77D

Appearance: The cells are of ovoid form (0.8-1.0 μm) arranged in pairs, sometimes short chains. Stationary. The colonies are white, smooth, glittering with even edges.

Reactions:

1. Growth in milk (reduced litmus).
2. Growth in media with 40% of bile.
3. Growth of pH 9.6.
4. Growth in 6.5% NaCl (but not 9% NaCl).
5. Temperature boundaries of growth 10-50°C.
6. Optimum temperature 37°C.
7. Optimum pH 6.8-7.0.
8. Forms NH_3 from arginine.
9. Growth on medium with citrate.
10. No gas from glucose.
11. Acid from: Glucose, alpha-arabinose, melibiose, fructose, galactose, lactose, amylose, sorbose, mannitol, ribose, dextrin.
12. No acid from: melicitose, dulcitol, xylose, raffinose, inositol, adonitol, rhamnose, inulin, sucrose, sorbitol, amygdalin.

The organism is identified in accordance with Bergey's Manual of Systematic Bacteriology 9/1986 Vol. 11.

APPENDIX III

**ACNFP REPORT ON OIL FROM A FERTILITY RESTORER LINE
FOR USE IN A HYBRID PROGRAMME FOR GENETICALLY
MODIFIED OILSEED RAPE**