

# **Research Requirements Document**

**Issue 20**

**Requirements for Research and Surveys**

**December 2005**



<b>Contents</b>	<b>Page</b>
<b>SECTION 1 – BACKGROUND AND GUIDANCE FOR APPLICANTS</b>	
<b>Background</b>	
Commissioning Research	1
Speculative Proposals	3
Managing Research Projects	3
Disseminating Research Results	3
<b>Guidance for Applicants</b>	
General	5
Further Information	6
Study Design, Statistical and Ethical Issues	6
Survey Proposals	8
Proposal Submission Deadlines and Appraisals	9
Timetable	9
Appraisal of Proposals	9
Selection Criteria	10
Intellectual Property Rights	11
Contract Authorisation	11
Monitoring of Progress	12
Reporting	12
<b>SECTION 2 – NEW REQUIREMENTS</b>	
<b>Forward Look</b>	
Introduction	14
Possible Areas of Future Work	14
Longer-term Strategic Direction	14
<b>Research and Surveys</b>	
Food additives (A01)	16
Food irradiation (A05)	20
Eggs and poultry (B15)	22
Microbial surveillance (B18)	24
Mycotoxins and process contaminants (including nitrate) (C03)	27
Data quality and improved methods of analysis (E01)	29
Safety assessment of novel and GM food (G03)	32
Transmissible spongiform encephalopathies (TSEs) (M03)	36
Diet and cardiovascular health (N02)	40
Nutritional status and function research (N05)	43
Diet and colonic health (N12)	48
Radioactivity in food (R04)	50
Risk assessment (T01)	53
Scotland - Research and surveillance (S14)	55

**Programme co-ordinators**

Mycotoxins and process contaminants (Co-ordinator for OCLs) (C03)	57
Mycotoxins and process contaminants (Programme co-ordinator) (C03)	60

<b><u>ANNEX 1</u> - Guidelines for Completion of the Application Form RCU-A3</b>	62
--	----

<b><u>ANNEX 2</u> - The Application Form (RCU-A3)</b>	75
---	----

## Background

1. The Food Standards Agency commissions research to investigate specific issues covering the whole range of its activities. It uses the findings from this work both to develop its policies and to assess their effectiveness or to develop research where policy changes require new knowledge.
2. The Agency needs to base its decisions and advice on the best available science. One of the sources of this science is the Agency's research portfolio. This supports its work on consumer protection, and covers a wide variety of topics including food safety (including toxicology and food intolerance), nutrition, food authenticity and food quality issues.

## Commissioning Research

3. The Agency commissions research and survey work through open competition, to obtain the best quality and value for money. This document sets down, in broad terms, the research that the Agency wishes to commission from strategic R&D through to food surveillance. Currently, the Agency publishes this document on a quarterly basis. The document is available primarily from the Agency's Internet website by following the appropriate links at:

**<http://www.food.gov.uk/science/research/researchfunding/rrd>**

4. The entire document can be downloaded (in Adobe Acrobat pdf or Microsoft Word format) and the application form (RCU-A3) can be downloaded in Microsoft Word format at the above webpage. **Please note: A new version of the application form - RCU-A3 (rev 08/04) - needs to be downloaded as this is compatible with the Agency's new research management system (REMIND), please do not submit a previous version of the form.** In addition, the Food Standards Agency Standard Terms and Conditions for research contracts and the Joint Code of Practice for Quality Assurance in Research can also be found from this webpage.
5. Printed copies can be made available on request to interested parties who lack, or have limited, Internet access from the following address:

**Research Co-ordination Unit,  
Food Standards Agency  
Room 211C Aviation House,  
125 Kingsway,  
London WC2B 6NH**

**Tel: 020 7276 8762**

**Fax: 020 7276 8289**

6. Proposals received will be appraised against the criteria detailed in this document (see "**Appraisal of Proposals**", para 37 in this section), both by Agency staff and independent experts. This appraisal system will allow Policy Divisions to decide in a fair and objective way which projects should be funded. Policy Divisions are thus solely responsible for commissioning the work they require.

7. **Appraiser's comments will be fed back to applicants.** The Agency will send Applicants a copy of the comments made by the individuals who appraise their proposal on our behalf, plus any requests for clarification. Applicants will then have a 2 week period when they can respond briefly to these comments or provide clarification, which will then be considered when the appraisal panel meets.
8. **Quality Assurance: Joint Code of Practice for Quality Assurance in Research.** The Agency, together with Defra, BBSRC and NERC, has been considering ways to improve the quality of research processes (as distinct from the quality of science) in the research we support. This is an important way to improve public confidence in the results of publicly funded research and reduce the risk of policies and advice being based on incorrect findings. To this end we have introduced a *Joint Code of Practice for Quality Assurance in Research*, which lays out a framework for the proper conduct of research. This applies to all research funded by Defra, the Food Standards Agency and through the devolved authorities (who have also endorsed the Code) and to research funded by BBSRC and NERC in their own institutions. It sets out the key aspects of assuring the quality of the work and the importance of making judgements on the appropriate precautions needed in every research activity, and it is consistent with the requirement that all research should be conducted diligently by competent researchers. The Code is intended to apply to all types of research, but the overriding principle is 'fitness-for-purpose' and the Code's provisions should be interpreted with that in mind.

The code of practice can be found by following the links at:

**<http://www.food.gov.uk/science/research/researchfunding/rrd>**

9. It is expected that all Agency-funded research will be performed in compliance with the requirements of the Joint Code of Practice for Research. The Agency reserves the right to audit projects against the Code. Applications will **not** be automatically rejected if the project will not be performed under quality assurance measures that fully meet the Code's requirements. However, you will need to specify (in section B6 of the application form) which quality assurance measures you feel are not yet in place (or are not relevant) and, where appropriate, state the timescale in which these will be addressed to meet the Code's requirements. Where quality assurance measures require development, appropriate interim project management arrangements should be outlined with the project milestones. These factors will be taken into account in appraising this proposal and managing the project if the proposal is successful. Failure to declare compliance or to identify the steps taken to ensure future compliance (with timescales) may result in applications being rejected without consideration. An audit programme to monitor compliance is being developed.
10. The Principle Investigator is responsible for all work carried out in the project, including work supplied by **sub-contractors**. You should therefore assure yourself that the contribution they provide to the project is carried out in accordance with your stated compliance with the Code of Practice.
11. The Agency's keenness to promote the quality of the science it commissions is also reflected in the contract Terms and Conditions. **Anyone wishing to submit a proposal must therefore ensure that the Agency's standard**

**Terms and Conditions are acceptable to their organisation.** These Terms and Conditions can also be found at the above website URL.

12. The Agency welcomes applications from outside the UK and joint or collaborative applications.

### **Speculative Proposals**

13. The Agency will not consider speculative proposals that do not specifically address the requirements set out in this document.
14. In addition, please note that the Agency will not consider speculative *curricula vitae* in search of employment within the Agency.

### **Managing Research Projects**

15. Within the Agency, Policy Divisions are responsible for the management of individual projects and Programmes. Policy Divisions are staffed with experienced scientists who have an intimate knowledge of the policy issues that form the rationale for the research. This ensures that research that is commissioned feeds directly into policy decisions.
16. Each project is assigned a Project Officer who is responsible for managing the project. The Officer will conduct site visits, ensure reports are delivered on time and to a high standard and maintain information about the project that is held on the Agency's Research Management (REMIND) database. This system enables the scientific progress of the project to be monitored against agreed milestones and project expenditure to be compared with budgets.
17. Programme Advisors may also be appointed to take an overview of a whole Programme and may assist with project management. Programme Advisors are usually independent experts recruited for the task on the basis of their experience. These independent experts are appointed when an external perspective is considered beneficial or to supplement the expertise of the Policy Division and they assist in the active management of projects.

### **Disseminating Research Results**

18. The Agency is keen to publicise its research through new and traditional media. Certain information given on the application form will be made available on the Agency's website as well as being available in more traditional types of publication, such as our *Research and Survey Programmes Annual Report*. The sections that will be available on the website are highlighted on the RCU-A3 form (Annex 2). Please ensure that you are content for your material to be used on the Internet.
19. Successful Applicants are encouraged to publish the findings of their research in the scientific literature. There is a section for proposed dissemination activities in the application form. Applicants should consider this section carefully to ensure they have planned means for publishing or utilising their work in other ways. It is Agency policy that accepted final project reports will be made available through the Agency library and will be publicised on the

Agency's website, subject to consideration of implications for journal publication and intellectual property.

## Guidance for Applicants

### General

20. For each research proposal, applicants should submit:

- **1 copy in electronic format** of the completed standard application form, RCU-A3 (rev 08/04 – this new template must be downloaded from the website) on 3.5” floppy disc, CD-ROM or as an e-mail attachment

plus

- **1 printed copy with original signatures.**

**Applications received in electronic format only will NOT be considered.**

**Please note:** because the Agency uses **Microsoft Word 97** there may be compatibility problems if you use a later version of Word. Therefore, please save your completed RCU-A3 form in **Word 97** format.

21. Electronic versions of this Requirements Document, and the RCU-A3 proposal form, can be obtained from the Agency’s Internet website, following the appropriate links at:

**<http://www.food.gov.uk/science/research/researchfunding/rrd>**

22. The entire document can be downloaded (in Adobe Acrobat pdf or Microsoft Word format) at the above webpage. In addition, the Food Standards Agency Standard Terms and Conditions for research contracts and the Joint Code of Practice for Quality Assurance in Research can also be found from this webpage.

23. Printed copies can be made available on request to interested parties who lack or have limited Internet access, from the following address:

**Research Co-ordination Unit,  
Food Standards Agency  
Room 211C Aviation House,  
125 Kingsway,  
London WC2B 6NH**

**Tel: 020 7276 8762      Fax: 020 7276 8289**

24. All proposals submitted should fall within the scientific objectives of one or more of the Programmes listed in this document and address one of the Requirements featured. Potential contractors should describe the experimental approaches to be used and the scientific objectives of the project. In the case of joint applications, the Lead Contractor should submit a single summary application on behalf of all participants. The form should give details of the aspects of the project that each contractor will be carrying out and clearly indicate on the application form that it is part of a joint application.

## Further Information

25. Each section of this document provides details of the relevant contacts for each Programme.

**To ensure that Applicants have a full and accurate understanding of the Agency's requirement, Applicants are requested to contact the relevant person at an early stage to discuss any questions they may have concerning the Programme or specific requirement.**

## Study Design, Statistical and Ethical Issues

26. Where a research or survey proposal involves substantial statistical work potential Applicants should note that the experimental design chosen and proposed statistical analysis of the results are important criteria in the appraisal of their proposal. Agency statisticians and, if necessary, external statistical advisors will appraise any relevant proposals. Serious statistical flaws identified in the design of an experiment and proposed statistical analysis of the results may result in failure of the application.
27. Where a proposal involves a trial on human subjects (e.g. a dietary trial), potential contractors must provide detailed protocols appended that provide the following information (where appropriate to the proposal):
- experimental design and reason for choice of this design;
  - number of subjects involved and statistical power of the trial;
  - an assessment of subject compliance;
  - subject recruitment strategy;
  - an assessment of seasonal variation;
  - the nature of any placebo to be used;
  - ethical committee approval; and
  - proposed assessment of background diet.
28. The Agency expects that expert statistical advice is sought during the preparation of an application involving a trial on human subjects and that a statistical advisor for the proposed project is named on the application form.
29. Potential Applicants may wish to consult the following publication for background reading on the design of studies:
- 'Fundamentals of Clinical Trials' (3rd Edition) Friedman, L.M., Furberg, C.D. & DeMetz, D.L. publ. Moseby (ISBN: 0815133561)
30. Applicants are encouraged, where appropriate, to make use of the food consumption data collected in surveys and in particular the Government funded National Diet and Nutrition Surveys:
- J. Gregory, *et al.* (1990) The Dietary and Nutritional Survey of British Adults. publ. HMSO (ISBN 0 11 691300 2)

- Ministry of Agriculture, Fisheries and Food (1994) The Dietary and Nutritional Survey of British Adults - Further Analysis. publ. HMSO (ISBN 0 11 242966 1)
- J.R. Gregory, *et al.* (1995) National Diet and Nutrition Survey: children aged 1½ to 4½ years. Volume 1: Report of the diet and nutrition survey. publ. HMSO (ISBN 0 11 691611 7)
- S. Finch, *et al.* (1998) National Diet and Nutrition Survey: people aged 65 years and over. Volume 1: Report of the diet and nutrition survey. publ. The Stationery Office (ISBN 0 11 543019 8)
- J. Gregory, *et al.* (2000) National Diet and Nutrition Survey: young people aged 4-18 years. Volume 1: Report of the diet and nutrition survey. publ. The Stationery Office (ISBN 0 11 621265 9)
- L. Henderson, *et al.* (2002) National Diet and Nutrition Survey: adults aged 19 to 64 years. Volume 1: Types and quantities of foods consumed. publ. The Stationery Office (ISBN 0 11 621566 6)
- L. Henderson, *et al.* (2003) National Diet and Nutrition Survey: adults aged 19 to 64 years. Volume 2: Energy, protein, carbohydrate, fat and alcohol intake. publ. The Stationery Office (ISBN 0 11 621567 4)
- L. Henderson, *et al.* (2003) National Diet and Nutrition Survey: adults aged 19 to 64 years. Volume 3: Vitamin and mineral intake and urinary analytes. publ. The Stationery Office (ISBN 0 11 621568 2)
- D. Ruston, *et al.* (2004) National Diet and Nutrition Survey: adults aged 19 to 64 years. Volume 4: Nutritional status (anthropometry and blood analytes), blood pressure and physical activity. publ. The Stationery Office (ISBN 0 11 621569 0)

The general enquiry number for The Stationery Office (formerly HMSO) is 0870 600 5522 or visit website: [www.tso.co.uk](http://www.tso.co.uk)

31. Such surveys provide opportunities to examine changes in dietary habits and food choice in relation to health measures, lifestyles, social circumstances and mortality. Gillian Swan, Nutrition Division (Tel: 020 7276 8912; E-mail: [gillian.swan@foodstandards.gsi.gov.uk](mailto:gillian.swan@foodstandards.gsi.gov.uk)) can provide prospective contractors with further information and advice on using survey data.
32. Research proposals that involve human participation and samples, tissues or information will require the approval of the **local ethical committee** of the applicant or participant intending to be responsible for that part of the work. Obtaining this approval will be the responsibility of the successful applicant. Applicants should provide details of the process by which they intend to obtain the appropriate ethical approval and any relevant dates or deadlines, especially where associated work will be dependent on timely approval being obtained. Applicants are recommended to have adequate and appropriate insurance cover for any volunteers participating in Agency-funded studies. The Agency accepts no liability for any loss, damage, personal injury or death arising from the contractor's use of human volunteers subject to the overriding provisions of the Unfair Contract Terms Act 1977.

33. It is recommended that research proposals involving the use of a **Randomised Controlled Trial** (RCT), particularly if intended for scientific publication, conform to the CONSORT guidelines. Details can be found at:

<http://www.thelancet.com/info/info.isa?n1=authorinfo&n2=CONSORT+guidelines>

### **Survey Proposals**

34. Potential contractors should note that surveillance work would be expected to conform to the current *Guidelines for Food Standards Agency Technical Surveys*. For queries concerning surveillance work policy please contact Dr Roger Wood, Analytical Services, Surveys & Research Policy Division (Tel: 01603 255231; E-mail: [roger.wood@foodstandards.gsi.gov.uk](mailto:roger.wood@foodstandards.gsi.gov.uk)). The latest version of the Guidelines can be found on our website at:

<http://www.food.gov.uk/science/surveillance/guidefsatechsurv>

## Proposal Submission Deadlines and Appraisals

35. Proposals must be submitted directly to the appropriate contact point detailed in the relevant Research and Survey Requirements section of this document.

### DEADLINE FOR RECEIPT OF SUBMISSIONS

All applications **must** be received by **17:00 hrs on Friday 24 February 2006** (*unless otherwise indicated in the specific requirement*)

We regret that faxed proposals or proposals received after the specified deadline date will not be considered.

## Timetable

36. The proposed timetable of **latest** dates for completion of related actions for this Food Standards Agency commissioning round is set out below. After the closing date for applications (**17:00 hrs on Friday 24 February 2006**, *unless otherwise stated in the specific requirement*) the proposals will be distributed to Agency staff, Programme Advisors and independent experts where appropriate for appraisal.

DATE	ACTION
<b>Thursday 15 December 2005</b>	Research Requirements Document published
<b>Friday 24 February 2006</b>	Closing date for receipt of proposals ( <i>unless otherwise specified in the text</i> )
<b>Friday 10 March 2006</b>	Receipt of proposals acknowledged
<b>March - June 2006</b>	Applicants should expect to receive appraisers' comments and requests for clarification
<b>Friday 16 June 2006</b>	Applicants informed of the outcome of the appraisal of their proposals

## Appraisal of Proposals

37. Each proposal will be evaluated by Agency staff and independent appraisers, who provide written comments and opinions on the quality of the proposed work, and may also ask for some points to be clarified. Building on the principles of openness and fairness during the appraisal process, the Agency will send an anonymous copy of appraisers' requests for clarification to the applicant. Applicants will then have a 2-week period to respond briefly to the comments and requests for clarification made by appraisers on their proposals. This response will be considered, together with the appraisers' original comments, when the panel of appraisers for each research Programme meets to decide which proposal(s) should be supported.

**Please note:** this is not an opportunity to submit a revised proposal, but only to respond briefly to appraisers' comments and requests for clarification. Appraisers' comments will be supplied for information only. The identity of individual appraisers will not be disclosed and we will not enter into correspondence over specific comments.

38. All Applicants will be informed of the outcome of the assessment process **by Friday 16 June 2006**.
39. Applications will be either successful or rejected. Those that are successful in passing the initial appraisal process are likely to require post-tender negotiations to agree details and allow a contract to be prepared. Applications that do not meet the policy objectives or research requirements stipulated will be rejected. The relevant Agency Policy Division will be able to provide details of the reasons for the rejection or failure of unsuccessful proposals.

### **Selection Criteria**

40. All proposals for research are critically appraised by the policy customer (the relevant Agency Policy Division), the Programme Advisor and, where appropriate, acknowledged independent experts in the relevant field. Each proposal is carefully judged against all of the following criteria:

#### Selection Criteria

- the relevance of the research to the question in the requirements document;
- the realism of the research;
- the likelihood of the objectives being achieved by the proposed approaches;
- whether or not the work seems to follow a logical progression;
- the costs of the work;
- the skills and resources of the contractor (and any sub-contractor);
- that consideration has been given to whether the proposal would be enhanced by collaborative work with other research groups, including those overseas;
- value for money; and
- provisions for dissemination and intellectual property.

41. As well as key criteria, such as cost and value for money, Quality Assurance is also an important criterion. The Agency already has in place clear guidelines for Quality Assurance in surveillance projects and, with other major research funders, has introduced a Joint Code of Practice for Quality Assurance in Research, which is described elsewhere in this document.
42. Applicants are required to sign a declaration that they will comply with the Code. Failure to declare compliance or to identify the steps taken to ensure future compliance (with timescales) may result in applications being rejected without consideration. An audit programme to monitor compliance is being developed.

43. Applicants' proposals will not be automatically rejected if the project will not be performed under quality assurance measures that fully meet the Code's requirements. However, the quality assurance measures not in place (or not relevant) should be specified (in section B6 of the application form). Where appropriate the plans to introduce compliant quality assurance measures and the timescale for this should be given, and the interim project management arrangements should be outlined in the project milestones.
44. The Agency commissions its work primarily through open competition. When deciding whether project proposals offer value for money, the Agency focuses on their overall cost. Value for money assessments will also include a consideration of the track record of the Lead Contractor and other participants and their ability to deliver the work the Agency needs, to the required standard and timescale.
45. If the Agency feels that elements of the proposed work programme are expensive or overpriced but that the proposal has other merits, it may seek to negotiate with the Contractor to explore appropriate options that can reduce some costs. Ultimately, however, proposals whose overall cost is considered high compared to others that offer comparable are likely to be considered less favourably.
46. In addition, for much of the work in food safety and applied nutrition, it will be advantageous to demonstrate that there is collaboration between scientists covering the multidisciplinary skills which are frequently necessary to achieve effective advances. The collaboration often crosses the traditional boundaries of Research Councils and University Departments. The Agency is keen to encourage collaboration between research groups, including overseas laboratories.

### **Intellectual Property Rights**

47. The Agency aims to promote the effective transfer of new technology arising from Agency-funded work through the Intellectual Property Rights (IPR) system.
48. At present the Agency implements this policy by initially retaining IP ownership of the results of Agency supported research. However, if there is potential for the commercial exploitation or protection of results, the Agency will be happy to collaborate closely with its Contractors in agreeing how to license or reassign the IPR concerned on mutually agreeable terms. Contractors are reminded that if patent protection is to be sought, results must remain confidential to the contractor and the Agency until such time as effective protection can be put in place.
49. If exploitable IP is expected or identified during the life of the project, Contractors should contact the Agency (Agency Project Officer or Research Co-ordination Unit) at the earliest opportunity to reach agreement on how to manage it and achieve effective protection, if appropriate.

### **Contract Authorisation**

50. The details of a research contract agreement will be agreed between the Agency and Contractor, based on the original Proposal and any subsequent negotiations. This will comprise a Schedule of Work (that specifies the project's agreed Approaches and Research Plan, Objectives, Milestones and Deliverables) and a Pricing Schedule (that summarises the Contractor's costs and the basis on which the Agency will make staged payments); both of these documents need to be signed by the Project Leader (for the Contractor) and Project Officer (for the Agency). The Agency's standard Terms and Conditions also form a part of the contract.
51. Once these are in place, and paperwork has been checked, the Agency's Research Co-ordination Unit will send the Contractor 2 copies of a Form of Agreement Letter to sign, that defines the contract agreement. Once signed by the appropriate Administrative Authority for the Contractor (usually whoever administers payments received, e.g. the finance director, company secretary, head of research services etc.) both copies of the Letter are returned to the Agency. The Letter is then authorised by the Agency, at which point the contract becomes effective.
52. Potential Contractors should note that until a signed Form of Agreement letter is received from the Agency, all correspondence relating to the proposal remains without prejudice. The Agency will be under no obligation to make payment for any work that is started before this Form of Agreement letter is signed by the Agency.

### **Monitoring of Progress**

53. All research projects commissioned by the Agency are monitored by a specified Project Officer, according to the Milestones and key measures of achievement (Deliverables) specified in the Scope of Work, which forms part of the research contract.
54. In addition, some Agency Policy Divisions appoint Programme Advisors to assist in managing specific research Programmes. Programme Advisors monitor and report on the progress of research projects to the relevant Policy Divisions but are also expected to:
  - encourage co-operation and interchange of ideas amongst the contractors contributing to the Programme;
  - regularly monitor progress by individual contractors;
  - inform Policy Divisions of any developments and advise on the need to set new milestones or goals as the research progresses; and
  - organise regular workshops between Contractors, Agency officials and management committees where appropriate.

### **Reporting**

55. The Agency expects the Contractor, usually through the Project Leader, to maintain regular contact with the Project Officer, that may include brief verbal or e-mail progress reports. In addition, the Contractor is expected to provide periodic written reports that summarise progress in relation to the Milestones, as specified by the Scope of Work, at regular intervals throughout the duration of

the project. The Contractor may also be required to attend yearly Programme Workshops or Reviews arranged by the Agency.

56. The Project Officer should discuss the Final Report's structure and how the work should be reported with the Project Leader well before the project end date and before the bulk of the report is written. Agreeing this in advance will avoid unnecessary effort and delay if the Agency later asks for major changes.
55. The Final Report should be a report of all of the work done, the results obtained and the Contractor's interpretation of the results. Contractors should provide the Project Officer with a draft report well in advance of the project end date to give Project Officers an opportunity to comment on its style, content and format. While the Agency does not have a prescribed style for Final Reports, the Contractor is expected to discuss and agree the format and style of the Reports during the course of the project.
56. On completion of the project, the Contractor provides a written Final Report on the work plus a completed Final Report Form (RCU-A5), which summarises the project's achievements against its objectives.
57. The Agency is committed to making the results of the work that it supports available to the public and strongly encourages Contractors to publish their project work in good quality peer-reviewed journals or make presentations to learned audiences. However, the Agency does expect contractors to seek the Agency's prior agreement for any such publication, through the relevant Project Officer.
58. In addition to publication, the Agency will make information about the project publicly available by placing a copy of the Final Report in the Agency's library and putting details about project results and its Final Report on the Agency website. Contractors should advise their project officer if this may affect the acceptance of the work for publication or any patent protection applied for.
59. If you have any queries, please refer initially to the named contact for the Programme you are considering, or the Research Co-ordination Unit (details on page 1).

## New Requirements – December 2005

### FORWARD LOOK

#### Introduction

60. The subjects listed in this section are not a forecast and the Agency does not guarantee that requirements will be issued for the research and survey ideas presented. Future requirements are dependent on policy priorities and the budgets available at the time.
61. Similarly, these possible areas for research and surveys are not exclusive, there are likely to be many other requirements advertised in forthcoming RRDs both in related and non-related policy areas.
62. **Please note** – the Agency will not enter into correspondence about the topics described below or other potential topics.

#### Possible Areas of Future Work

Policy area	Area of future work	Timescale
Food Allergy	Research to understand further the route and timing of exposure on the acquisition of allergic sensitisation to food proteins.	3-6 months
	Investigations into the intrinsic and extrinsic factors that affect the severity of a food allergic reaction.	3-6 months
Economics	An economics/social research based project into improving our understanding of consumer perceptions and attitudes towards different food risks, diets and the quantitative estimation of the benefits of risk reduction in different food-related contexts.	3-9 months
Dietary Surveys	Further development and validation of portion size assessment tool(s) for use in children following on from recently funded work.	Within the next 9 months
Microbiological Safety	Further research in the programme area of organic waste to land is being considered based on the outputs and recommendations from the research programme review. Research on areas such as irrigation water may be required.	Within the next 12 months

#### Longer-term Strategic Direction

63. In the longer term, potential contractors will wish to note that in December 2004 the Agency published its Strategic Plan for the years 2005-2010. The Strategic Plan has implications for our future research priorities.
64. The Strategic Plan identifies three priority work areas (Food Safety, Eating for Health and Choice) and sets specific targets within each of these areas. In

addition it mentions that the Agency plans to improve its access to expertise in the social, economic and behavioural sciences.

65. For further details see:

[www.food.gov.uk/news/newsarchive/2004/dec/strategicplan](http://www.food.gov.uk/news/newsarchive/2004/dec/strategicplan)

## PROGRAMME A01 – FOOD ADDITIVES - RESEARCH

### Introduction

66. The Agency's research programme (A01) on food additives aims to support consumer protection by carrying out work which ensures that the use of food additives does not compromise food safety. Research into the nature of food additives and their use is a fundamental part of the (A01) programme. The information from such research is used to inform legislation, allow more refined intakes estimates to be conducted and to provide information to consumers.
67. Development of a validated analytical methodology for food additives is required for identification and quantification of additives in food systems. Such activities are key to enable enforcement of legislation and to protect the consumer from misuse of food additives. Food surveillance is integral to improving understanding of additive exposure through collation of information on additive levels and usage. This information is needed to monitor additive levels in foods, changes in dietary behaviour and patterns of additive use, and to fulfil European Community legislation requirements for Member States to monitor food intakes to ensure additive use is safe i.e. intakes are below acceptable daily intakes (ADIs).
68. A formal review of the A01 research programme in June 2005 highlighted the need to further investigate and successfully validate a number of methods developed under the A01 programme. The validated methods may then be used by enforcement agencies to ensure the limits specified in additives legislation are adhered to and to gain information on additive usage levels.
69. The application of nanotechnology to food additives and other (novel) food ingredients is an emerging science. Engineering at the nanoscale has the potential to create new opportunities for food industries, and various applications of the technology are being suggested for both additives and other food ingredients. However, careful consideration of consumer safety and regulatory implications of their possible use is also required.

### Research/Survey Requirements

Develop a fully validated method for the determination of tartaric acid and tartrates in food based on the method previously developed by Agency funded research.

70. Tartaric acid (E334) and its salts (E335-337, E354) are generally permitted additives controlled by the Miscellaneous Food Additives Regulations 1995 (as amended). These additives are used in food as a source of acidity and also as buffers and taste modifiers.
71. A high performance liquid chromatography (HPLC) method was developed for the analysis of tartrates through Agency research project A01035, however, the method requires further validation. A copy of the final report can be obtained from the Agency Information Centre. Contact the Enquiry Desk,

Information Services (Tel: 020 7276 8181 or 020 7276 8182. Fax: 020 7276 8069. Email: [infocentre@foodstandards.gsi.gov.uk](mailto:infocentre@foodstandards.gsi.gov.uk))

72. Project information is also available on the Agency website at [www.food.gov.uk](http://www.food.gov.uk). Proposals are requested to refine the method, if necessary, and then to proceed to full validation through collaborative trial. The developed method of analysis should be suitable for routine use in general analytical laboratories.

73. **Proposals** are therefore invited to:

**Requirement Reference: A01R0002**

**Develop a fully validated method for the determination of tartaric acid and tartrates in food based on the method previously developed by Agency funded research**

Validation of a simultaneous method of analysis for intense sweeteners in permitted foods.

74. Intense sweeteners are often used in combination in foodstuffs. Therefore a method to simultaneously determine these sweeteners in foods is required. A high performance liquid chromatography (HPLC) method was developed under Agency project A01012, using dialysis extraction. However the method was not suitable for the determination of intense sweeteners in certain food matrices. Proposals are required to develop a robust and generally applicable method of analysis which is fully validated by collaborative trial. The developed method of analysis should be suitable for routine use in general analytical laboratories.

75. **Proposals** are therefore invited to:

**Requirement Reference: A01R0003**

**Develop a fully validated method for the simultaneous determination of intense sweeteners in food.**

Validation of a method of analysis for antioxidants in a range of foods

76. A method was developed through Agency project A01020 to extract and quantify antioxidants (e.g. butylated hydroxyanisole (BHA), butylated hydroxytoluene (BHT), propyl gallate (PG), octyl gallate (OG) and dodecyl gallate (also known as lauryl gallate, LG)) from foods. However, validation by collaborative trial is still required. A copy of the final report can be obtained from the Agency Information Centre. Contact the Enquiry Desk, Information Services (Tel: 020 7276 8181 or 020 7276 8182. Fax: 020 7276 8069. Email: [infocentre@foodstandards.gsi.gov.uk](mailto:infocentre@foodstandards.gsi.gov.uk))

77. Proposals are required to refine the method, as necessary, and then to proceed to full validation. The developed method of analysis should be suitable for routine use in general analytical laboratories. The method should also be extended to cover the analysis of the recently approved tert-butylhydroquinone (TBHQ).

78. **Proposals** are therefore invited to:

Requirement Reference: A01R0004

**Develop a fully validated method for the determination of antioxidants in food based on the method previously developed by Agency funded research.**

Nanotechnology in food additives and (novel) food ingredients

79. Research is now needed to gather more information on the potential applications of nanotechnologies to food additives and (novel) food ingredients. Both consumer safety and regulatory implications will need to be considered.

80. **Proposals** are therefore invited to:

Requirement Reference: A01R0005

**Assess potential applications of nanotechnology for food additives and other (novel) food ingredients, considering the consumer safety and regulatory implications of their possible use.**

Review and report on the current knowledge of the extraction of additives from complex food matrices and possible future developments

81. The most difficult aspect of analysing components present in complex food matrices can be the initial extraction of the analyte from the foodstuff. A recent review of the Agency's food additives research and surveillance programmes identified this as a recurring difficulty for contractors or those wishing to undertake the analyses. It was also recognised that the problem is not only confined to the extraction of additives but also occurs within other areas of interest to the Agency such as the extraction of contaminants from food.

82. This is a perennial problem and data and methods exist in the literature from many years of investigation. It is proposed that existing data should be reviewed and reported on in order to inform and direct future Agency research on extraction of analytes from complex food matrices.

83. **Proposals** are therefore invited to:

Requirement Reference: A01R0006

**Review and report on the current knowledge of the extraction of additives from complex food matrices, and possible future developments**

**Further Information**

84. **Before preparing your proposals** please contact the named person below for advice and information on the specific scientific issues or the policy background/objectives:

**Dr James Ridsdale**, Novel Foods, Additives and Supplements Division,

Tel: 0207 276 8559; Fax: 0207 276 8514;

E-mail: james.ridsdale@foodstandards.gsi.gov.uk

85. Proposals should be sent, to be received **by 17:00 hrs on Friday 24 February 2006** to:

E-mail: [FSA\\_Remind@foodstandards.gsi.gov.uk](mailto:FSA_Remind@foodstandards.gsi.gov.uk)

Post:

Dr James Ridsdale  
Novel Foods, Additives and Supplements Division  
Food Standards Agency  
Room 515B, Aviation House  
125 Kingsway  
London WC2B 6NH

**PLEASE READ CAREFULLY THE SECTION ENTITLED  
'GUIDANCE FOR APPLICANTS'  
BEFORE SUBMITTING YOUR PROPOSAL**

## PROGRAMME A05 – FOOD IRRADIATION: RESEARCH IN SUPPORT OF DETECTION TESTS AND THE PROVISION OF SCIENTIFIC ADVICE

### Introduction

86. Research in this programme is intended to develop and implement policy on food irradiation and provide scientific advice as required. It includes work related to ensuring consumer choice and protection by enabling the Agency to provide the best possible advice and information on irradiated food. Examples of broad topics to be covered are:
- commissioning surveys to check that irradiated food is legal and correctly labelled (so enabling consumers to make informed choices);
  - ensuring that a range of suitable detection methods are available for use with different foods irradiated worldwide, recognising that the types of food irradiated may change with time (tests that would be able to indicate the level of radiation exposure, would be of particular interest);
  - commissioning reviews of health effects of food irradiation, or irradiated food packaging or any other emergent issues that may potentially affect food safety or be of concern to consumers.

### Research Requirements

#### Optimisation of the photostimulated luminescence (PSL) detection tests to detect irradiated dietary supplements

87. The FSA survey of herbs, spices, dietary supplements, pawns and shrimps in 2002 ([www.food.gov.uk/science/surveillance/fsis-2002/25irradi](http://www.food.gov.uk/science/surveillance/fsis-2002/25irradi)) used PSL as a test to screen for irradiation prior to confirmatory analysis using the thermoluminescence (TL) test.
88. A number of dietary supplements were screened as non-irradiated by PSL, but later analysis by TL showed that some had been irradiated. This project should further investigate the PSL detection of irradiation in dietary supplements to see if the parameters of the test can be further optimised for products such as dietary supplements.
89. **Proposals** are therefore invited for:

Requirement Reference: A05R0004

**Optimisation of the photostimulated luminescence (PSL) detection tests to detect irradiated dietary supplements.**

### Further Information

90. **Before preparing your proposals** please contact the named person below for advice and information on the specific scientific issues or the policy background/objectives:

**Dr Carl Blackburn**, Emergency Planning, Radiation and Incidents Division

Tel: 020 7276 8744; Fax: 020 7276 8789;

E-mail: [carl.blackburn@foodstandards.gsi.gov.uk](mailto:carl.blackburn@foodstandards.gsi.gov.uk)

91. Proposals should be sent, to be received **by 17:00 hrs on Friday 24 February 2006** to:

E-mail: [FSA\\_Remind@foodstandards.gsi.gov.uk](mailto:FSA_Remind@foodstandards.gsi.gov.uk)

Post:

Adenike Banjoko  
Division EPRI  
Food Standards Agency  
Room 715C  
125 Kingsway  
London WC2B 6NH

**PLEASE READ CAREFULLY THE SECTION ENTITLED  
'GUIDANCE FOR APPLICANTS'  
BEFORE SUBMITTING YOUR PROPOSAL**

## PROGRAMME B15 – EGGS AND POULTRY

### Introduction

92. Over recent years the Agency has been working towards a target to reduce foodborne disease by 20% by 2006, and will be working to further reduce foodborne illness over the next five years (2005-2010). As campylobacter is responsible for the majority of cases, it is clear that in order to achieve the target action needs to be focused on this organism. Further, while it is accepted that there may be a number of routes by which humans are exposed to campylobacter, there is strong evidence that the most significant is the presence of this organism on chicken.
93. The Agency has set a new target to work with industry to achieve a 50% reduction in the incidence of UK produced chicken testing positive for campylobacter by 2010. The B15 research programme has a specific focus on chicken and campylobacter in support of the reduction target. The Agency's campylobacter Strategy focuses on chicken, reflecting the importance of chicken meat in terms of production, trade and consumption. However, all commercial poultry species can be colonised with *Campylobacter* spp. and products derived from them can also be contaminated with this pathogen.
94. The Agency appreciates that other types of poultry may not be as significant as chicken in terms of foodborne disease. However, it is important to assess available information to determine whether this is indeed the case, and provide an indication of the contribution they may make. In their Second Report on Campylobacter<sup>1</sup>, the Advisory Committee on the Microbiological Safety of Food concluded that evidence suggests that all commercial poultry species are as susceptible as chicken to campylobacter colonisation. However, the Committee noted that there appears to be little hard information available in relation to the UK situation.

### Research Requirements

Review what we know about the extent of campylobacter in poultry other than chicken, and how this may contribute to human campylobacter cases.

95. The Agency seeks proposals to review the available data on the prevalence of campylobacter in turkeys, ducks and other commercial poultry (other than chicken) and products derived from them, and how this may contribute to human campylobacter cases. Applicants are encouraged to take account of the latest research findings, data from published literature (UK, other European and worldwide), and available industry data. It is expected that the review will produce recommendations for the need for further research or surveillance in this area, in consultation with interested parties.
96. It is expected that the review should be completed within a six month period, although longer-term proposals will be considered if appropriate justification is provided. The project will be largely paper-based, although may involve discussion with relevant sectors of the industry.

---

<sup>1</sup> Advisory Committee on the Microbiological Safety of Food 2005. Second Report on Campylobacter. Published by Food Standards Agency, FSA/0986/0605

97. **Proposals** are therefore invited to:

Requirement Reference: **B15R0004**

**Review what we know about the extent of campylobacter in poultry other than chicken, and how this may contribute to human campylobacter cases.**

#### **Further Information**

98. **Before preparing your proposals** please contact Dr Linden Jack for advice and information on the specific scientific issues or the policy background/objectives:

**Dr Linden Jack**, Microbiological Safety Division

Tel: 020 7276 8941; Fax: 020 7276 8907

E-mail: [linden.jack@foodstandards.gsi.gov.uk](mailto:linden.jack@foodstandards.gsi.gov.uk)

99. **Proposals** should be sent, to be received **by 17:00 hrs on Friday 24 February 2006** to:

E-mail: [FSA\\_Remind@foodstandards.gsi.gov.uk](mailto:FSA_Remind@foodstandards.gsi.gov.uk)

Post:

Helen Prangle  
Microbiological Safety Division  
Food Standards Agency  
Room 816C, Aviation House  
125 Kingsway  
London WC2B 6NH

**PLEASE READ CAREFULLY THE SECTION ENTITLED  
'GUIDANCE FOR APPLICANTS'  
BEFORE SUBMITTING YOUR PROPOSAL**

## PROGRAMME B18 - MICROBIAL SURVEILLANCE

### Introduction

100. One of the functions of the Food Standards Agency is to provide advice to the public and the Government on food safety, nutrition and diet. The Agency commissions research to support this function and to help ensure that its policies and advice are based on the best available science. The objective of the Microbiological Food Safety research theme is to provide robust information on the presence, growth, survival and elimination of micro-organism throughout the food chain; and the extent, distribution, causes, risks and cost of foodborne disease.
101. The Agency has set a target to reduce foodborne disease by 20% by 2006 and, as part of its new strategic plan, to further reduce foodborne disease over the next 5 years. *Listeria monocytogenes* is one of the 5 key organisms against which the Agency is monitoring progress as part of its current foodborne disease target. Although the number of laboratory confirmed cases of *L. monocytogenes* infection are low compared to pathogens such as salmonella and campylobacter, the mortality rate associated with listeriosis is much higher (44% between 1990 and 2003) underlining the importance of *L. monocytogenes* as a foodborne pathogen.

### Survey Requirements

102. Although foodborne listeriosis is a rare disease in the UK, infections carry a high mortality rate. The number of cases of listeriosis in the UK has increased markedly over the last few years with figures doubling between 1990 and 2004. Most of this increase is accounted for by non-pregnancy-associated cases involving vulnerable groups such as the elderly and the immunocompromised. Because listeriosis has a high mortality rate it is important that sources of exposure to this organism are pinpointed, and factors contributing to infections identified. A research requirement to further our understanding of the epidemiology of foodborne listeriosis in the UK and the reason(s) for the recent rise in reported cases was advertised in RRD19. The present requirement is intended to complement this work and will help inform policy in this area in relation to food safety advice on consuming smoked fish, and cold sliced meats and pates, which are known to be a potential source of listeria.
103. The work required should focus on cold and hot smoked fish (eg smoked salmon, mackerel, Arbroath smokies, kippers etc.) and determine the prevalence and numbers of *Listeria* spp in each of type fish at retail throughout the UK. The survey will also be expected to include additional microbiological parameters such as total viable count, enterobacteriaceae, *E. coli*, salmonella, *Staphylococcus aureus* [and *Vibrio* spp]. Where available information on how the fish product is; processed, prepared, packaged, stored and its remaining shelf-life should be collected. Samples should also be examined for pH, water activity ( $a_w$ ) and/or salt and moisture content.

104. The Agency also wishes to undertake a microbiological survey of retail cold sliced meats and pates. The range of products is diverse and, contractors should focus on the range of cold sliced meats and pates which were included in the Ministry for Agriculture, Fisheries and Food (MAFF) ready to eat meat surveys in the 1990s, and more recent Health Protection Agency/ Local Authorities Co-ordinators of Regulatory Services (HPA/LACORS) surveys.<sup>1,2,3</sup> The survey should aim to determine the prevalence and numbers of *Listeria* spp in these meats and will also be expected to include additional microbiological parameters such as total viable count, enterobacteriaceae, *E. coli*, including *E.coli* O157, salmonella, campylobacter, *Staphylococcus aureus* and *Enterococci*. Available information on how the cooked sliced meat or pate is; processed, prepared, packaged, stored and its remaining shelf-life should be collected. Samples should also be examined for pH, water activity ( $a_w$ ), nitrate/nitrite levels and salt and moisture content.

#### References:

<sup>1</sup> MAFF. (1996) Report on the national study of ready to eat meats and Meat products Part 3.

<sup>2</sup> Gillespie, I., C. Little, and R. T. Mitchell. 2000. Microbiological examination of cold ready-to-eat sliced meats from catering establishments in the United Kingdom. *Journal of Applied Microbiology* 88:467-474.

<sup>3</sup> Elson, R., F. Burgess, C. Little, and R. T. Mitchell. 2004. Microbiological examination of ready-to-eat cold sliced meats and pâté from catering and retail premises in the UK. *Journal of Applied Microbiology* 96:499-509

105. **Proposals** are therefore invited to:

**Requirement Reference: B18R0004A**

**Carry out a UK-wide microbiological survey of retail smoked fish with particular reference to the presence of *Listeria monocytogenes***

**Requirement Reference: B18R0004B**

**Carry out a UK-wide microbiological survey of retail cold sliced meats and pates with particular reference to the presence of *Listeria monocytogenes***

#### Further Information

106. **Before preparing your proposals** please contact the named person below for advice and information on the specific scientific issues or the policy background/objectives:

**Dr Chun-Han Chan**, Microbiological Safety Division.

Tel: 020 7276 8957; Fax: 020 7276 8907;

E-mail: chun-han.chan@foodstandards.gsi.gov.uk

107. Proposals should be sent, to be received **by 17:00 hrs on Friday 24 February 2006** to:

E-mail: FSA\_Remind@foodstandards.gsi.gov.uk

Post:

Helen Prangley  
Microbiological Safety Division  
Food Standards Agency  
Room 816C, Aviation House  
125 Kingsway  
London WC2B 6NH

**PLEASE READ CAREFULLY THE SECTION ENTITLED  
'GUIDANCE FOR APPLICANTS'  
BEFORE SUBMITTING YOUR PROPOSAL**

## **PROGRAMME C03 – MYCOTOXINS AND PROCESS CONTAMINANTS (INCLUDING NITRATE)**

### **Introduction**

108. Many foods contain naturally occurring chemicals such as mycotoxins or chemicals produced during food processing (process contaminants) that have the potential to cause deleterious effects when consumed. Mycotoxins are groups of toxic compounds produced by moulds and are found in a wide range of foodstuffs and animal feedstuffs. Process contaminants are formed when components of food undergo reactions during processing such as fermentation, acid hydrolysis, kilning, curing, smoking, drying, as well as industrial or domestic cooking.
109. Programme C03/C04 provides information to help reduce consumer exposure to chemical contaminants such as mycotoxins (C03) and food processing contaminants (C04). All parts of the food chain have a responsibility to ensure that the food and feed they sell is free from illegal or unsafe levels of contaminants, including naturally occurring substances such as mycotoxins and processing contaminants.
110. The programme aims to generate detailed and robust information on mechanisms of formation, mitigation measures etc. Such information helps to develop Food Standards Agency policy in this area, including the need for relevant controls to reduce exposure to chemical contaminants via food, thus reducing the risk to consumer health.
111. Further details of the programmes are included in the Food Standards Agency Research and Survey Programmes Annual Report 2005: [www.food.gov.uk/science/research/researchannualreports/](http://www.food.gov.uk/science/research/researchannualreports/)

### **Research/Survey Requirements**

#### Method development for the analysis of ergot alkaloids in cereals

112. Intoxications induced by *Claviceps purpurea* have been known in Europe for many centuries. In humans these intoxications are described in the medieval literature as St. Anthony's Fire or Holy Fire, with reference to the intense pain resulting from vasoconstriction and subsequent gangrene, as well as the neurotoxic symptoms associated with the ingestion of ergot alkaloids. Currently, most of the sclerotia can be removed from ergoty grain with modern cleaning machinery, unless broken pieces are present or the sclerotia are similar in size to the grain. However, it is costly and often difficult to completely remove sclerotia from the grain.
113. Currently, there are no European Commission (EC) or UK maximum limits set for ergot or ergot alkaloids in foodstuffs. Although UK industry has a zero tolerance level for ergot in wheat. However, it is costly and may often be difficult to remove enough sclerotia to meet the required standards and traces of ergot can remain in the grain. The Commission has therefore requested Member States to collect data on ergot occurrence in order to refine its risk assessment to consumers with a view to setting considering maximum permitted limits.

114. However, no technique to determine ergot alkaloids has ever reached the stage of formal inter-laboratory validation, therefore the performance characteristics are not fully known. Certified matrix reference materials are not available for ergot alkaloids, but pure standards of several ergot alkaloids are commercially available.
115. It is therefore necessary to ensure robust analytical methodologies are developed to collect information on the occurrence of ergot alkaloids in cereals. Proposals should also consider if the developed method can be routinely applied by Public Analysts.
116. **Proposals** are therefore invited for:

**Requirement Reference: C03R0011**

**Method development for the analysis of ergot alkaloids in cereals.**

### **Further Information**

117. **Before preparing your proposals** please contact the named person below for advice and information on the specific scientific issues or the policy background/objectives:

**Dr Wendy Matthews**, Chemical Safety Division

Tel: 020 7276 8707

E-mail: wendy.matthews@foodstandards.gsi.gov.uk

118. Proposals should be sent, to be received **by 17:00 hrs on Friday 24 February 2006** to:

E-mail: FSA\_Remind@foodstandards.gsi.gov.uk

Post:

Ms Adenike Banjoko  
Emergency Planning, Radiation and Incidents Division  
Food Standards Agency  
Room 715C, Aviation House  
125 Kingsway  
London WC2B 6NH

**PLEASE READ CAREFULLY THE SECTION ENTITLED  
'GUIDANCE FOR APPLICANTS'  
BEFORE SUBMITTING YOUR PROPOSAL**

## PROGRAMME E01 - DATA QUALITY AND IMPROVED METHOD OF ANALYSIS

### Introduction

119. The development of new methods of analysis is essential for the enforcement of food and animal feeding stuffs law under both EU and UK legislation. Research funded through this research programme aims to establish the accuracy, precision and suitability of new methods and to refine existing techniques. It is the Food Standards Agency's strategy to use well-researched methods of analysis and to make them available for use by all organisations with an interest in assessing the chemical and microbiological safety or quality of food and animal feeding stuffs. It also develops analytical quality assurance measures applicable to the food analysis sector.

### Research/Survey Requirements

#### Assess and compare available methods of analysis for the determination of gluten in foods

120. There are a number of methods of analysis for the determination of gluten in foods, which have been adopted on a national or international basis. All of the methods are, by their nature, empirical. They are predominately enzyme linked immunosorbent assay (ELISA) based commercial procedures. Proposals are invited to undertake an independent comparison of the various methods and make recommendations as to the most appropriate to be used by food analysts.
121. The Codex Alimentarius Commission (through the Codex Committee on Nutrition and Foods for Special Dietary Uses and the Codex Committee on Methods of Analysis and Sampling) has proposed, and now temporarily endorsed, a new method of analysis for the determination of gluten in some foods. The method temporarily endorsed is, as with the previous Codex method, highly empirical in nature. Although there has been inter-laboratory validation work carried out on the new method, there has been no independent evaluation and comparison work carried out on the previous and replacement Codex endorsed methods of analysis.
122. The aim of this project is to compare and evaluate the analytical fractions each method determines. Recommendations should be made regarding the relationship between the Codex specification for gluten and the method used to evaluate it in legislation or in similar specifications.
123. The project outcome will underpin Agency negotiations regarding acceptance of the new Codex gluten method and make recommendations as to which method of analysis for gluten should be used in the UK for so-called gluten-free foods.
124. **Proposals** are therefore invited to:

Requirement Reference: E01R0008

**Assess and compare available methods of analysis for the determination of gluten in foods**

Assess sample preparation and sample handling procedures for the determination of sulphur dioxide in foods and make recommendations as to best practice

125. Methods of analysis for the determination of sulphur dioxide levels in foods have been established for many years. However, their practical application has been shown to be inconsistent. The reasons for this inconsistency are not well understood. Proposals are invited to undertake an independent comparison of the various methods of analysis for sulphur dioxide in foods and to develop and make recommendations as to the preparation and sample handling of materials. These recommendations may be used for quality control purposes and to provide consistent proficiency test materials.
126. Comparison work between two established laboratories, both analysing the same test material, has shown there to be inconsistency of result. This inconsistency is probably caused by the way test materials are handled and prepared for analysis in the laboratory rather than through poor (non-repeatable) analytical methods. The methods normally used by analysts have been established for many years and have been accepted by the Analytical Community on an international basis.
127. Methods for the preparation of routine quality control materials and the development of recommendations for their handling are required to ensure that analysts obtain consistent and comparable results.
128. A successful outcome to the project will enable the Agency to effectively monitor the sulphur dioxide within some foodstuffs and develop recommendations on sample handling for the analysis of sulphur dioxide in foods for the UK food control analysts.
129. **Proposals** are therefore invited to:

Requirement Reference: **E01R0009**

**Assess sample preparation and sample handling procedures for the determination of sulphur dioxide in foods and make recommendations as to best practice**

Assess sample preparation procedures for the determination of tin in food and make recommendations as to best practice

130. Methods of analysis for the determination of tin in foods have been established. Few have been validated through inter-laboratory collaborative trial. However, there has been proficiency testing of laboratories undertaking the analysis of tin. The results from these trials show that the analysis of tin is inconsistent. This inconsistency is probably caused by poor sample handling rather than poor end-point determination. Proposals are invited to undertake a review of the various sample digestion and handling procedures which laboratories should follow when analysing tin in foods.
131. Proficiency testing has shown that laboratories perform poorly in the analysis of tin. Frequently 50% of participants obtain unsatisfactory (z-) scores. The majority of unsatisfactory results are associated with a negative score, i.e. analysts are consistently under-reporting tin concentrations. The sample

preparation (digestion and extraction) of foods for the analysis of tin is known to be critical.

132. This project is to investigate and make recommendations on suitable sample preparation procedures for the analysis of tin in food. In particular, the effect of extraction conditions, digestion storage conditions, end-point determination procedures and time should all be considered.
133. A successful outcome to the project will enable the Agency to effectively monitor the tin content of some foodstuffs and develop recommendations on sample handling for the analysis of tin in foods for the UK food control analysts.
134. **Proposals** are therefore invited to:

**Requirement Reference: E01R0010**

**Assess sample preparation procedures for the determination of tin in food and make recommendations as to best practice.**

#### **Further Information**

135. **Before preparing your proposals** please contact the named person below for advice and information on the specific scientific issues or the policy background/objectives:

**Dr Roger Wood**, Analytical Services, Surveys and Research Policy Division,

Tel: 01603 255231; Fax: 01603 507723;

E-mail: Roger.Wood@foodstandards.gsi.gov.uk

136. Proposals should be sent, to be received **by 17:00 hrs on Friday 24 February 2005** to:

E-mail: FSA\_Remind@foodstandards.gsi.gov.uk

Post:

Ms. Angela Sarfaty  
Analytical Services, Surveys and Research Policy Division  
Food Standards Agency  
Room 211C Aviation House  
125 Kingsway  
London WC2B 6NH

**PLEASE READ CAREFULLY THE SECTION ENTITLED  
'GUIDANCE FOR APPLICANTS'  
BEFORE SUBMITTING YOUR PROPOSAL**

## PROGRAMME G03 – THE SAFETY ASSESSMENT OF NOVEL AND GM FOOD

### Introduction

137. Research funded by the Novel Foods, Additives and Supplements Division of the FSA supports the Agency's role in the rigorous safety assessment of all novel and genetically modified (GM) foods. This research ensures that sound science is applied to consumer safety issues concerning novel and GM foods.
138. This new research programme will build upon the results obtained in two previous programmes on the safety (G01) and safety assessment (G02) of novel foods and continue to support the mandatory safety assessment of GM and non-GM novel foods.
139. The G01 and G02 programmes aimed to underpin the safety evaluation of novel foods and refine the current safety assessment procedures for GM foods to cover the next generation of GM plants. G01 focused on projects to ensure that the introduction of novel foods is achieved safely by providing a framework of generic methods and information against which the safety evaluation of a specific novel food can be assessed. Under G01, analytical procedures were developed with a view to ensuring that existing and proposed labelling regulations can be enforced. The programme also funded projects which addressed the potential for horizontal gene transfer from the GM organism to gut bacteria, the potential for GM and novel foods to be allergenic, addressed transgene stability and looked for unintended effects arising from transgene insertion. Under G02, emerging techniques were developed, which explored the applicability and practicality of using a variety of technologies in genomics, proteomics and metabolic profiling in the safety assessment process.
140. The new G03 programme will build on and continue to support the mandatory safety assessment of GM and novel foods in order that the most up to date scientific knowledge may be used, and to support the enforcement of GM labelling regulations.

### Research/Survey Requirements

#### Develop a standard validated method(s) for the analysis of junction sequences in GM crop plants and investigate the process of transgene insertion in GM crop plants

141. Until recently the characterisation of the transgene insertion point for crop plants has been difficult and time consuming. However, work carried out under the G02 programme and other recently published work has resulted in a method(s) for the rapid analysis of junction sequences, which will assist in the risk assessment of GM crops.
142. Junction sequences are the DNA sequences that delimit the insertion of a transgene into the host genome. The ability to analyse junction sequences is crucial to the molecular characterisation of transgenic crops as the information can be used to establish the position of the transgene in the plant genome.
143. The European Food Safety Authority (EFSA) guidelines for the risk assessment of GM plants lists the characterisation of the insertion point of the introduced transgenic trait as one of the requirements for establishing the

safety of GM crop plants. This is because once the site of insertion has been determined this will provide information as to whether any functional genes are disrupted, which may lead to undesirable unintended effects, and whether any new open reading frames (ORFs) are created resulting in the synthesis of novel proteins. If so, further work can be carried out to determine whether these ORFs may code for potential allergens or toxins.

144. The discovery of a rapid polymerase chain reaction (PCR) based method for the identification of junction sequences paves the way for the refinement and validation of this method and its use to investigate factors affecting transgene insertion. This may lead to a better understanding of the mechanism of transgene insertion into the plant genome.

145. **Proposals** are therefore invited to:

Requirement Reference: **G03R0009**

**Develop a standard validated method(s) for the analysis of junction sequences in GM crop plants and investigate the process of transgene insertion in GM crop plants.**

Investigate the use of state of the art scientific techniques (in bioinformatics and proteomics) to develop new or improved methods for the identification of allergenic epitopes in novel (including GM) foods

146. There are no inherent grounds for assuming that GM or other novel foods are more or less allergenic than traditional foods. However, the safety assessment of novel (including GM) foods includes a consideration of the potential of the modification to illicit an allergic response, and considers the allergenic potential of novel foods. This requires assessment of the allergenicity of any new protein(s) by predictive methods or experimental testing.

147. The EFSA guidelines for the risk assessment of GM plants include the characterisation of the potential allergenicity of any new proteins introduced into a GM plant. Or those created by the production of new open reading frames at the site of the DNA insertion into the plant genome that may result in the synthesis of novel peptides or proteins.

148. Current methods for the assessment of the allergenicity of novel (including GM) foods involve comparison of linear sequence data from novel proteins with databases of known allergens (bioinformatics) together with tests, for example, serum cross reactivity tests involving potential new allergens. Other tests include the susceptibility of a protein to digestion in simulated gastric fluid. This test is used to determine the ability of a potential allergen to survive passage through the gut. If a protein is susceptible to digestion then its potential as an allergen is much reduced as it will not survive long enough to provoke an allergic reaction. While these methods are currently considered adequate in the context of the safety assessment, recent advances in bioinformatics such as 3-dimensional modelling of proteins and proteomics could be used to further refine the process. Specifically relating to bioinformatics improvements to, and harmonisation of, the algorithms that are used to compare sequence data and development of databases (which include information on the 3-dimensional structure and function of known allergens and

allergenic protein families) would be welcome. However, these suggestions are not exhaustive and other approaches will be considered.

149. Proposals are therefore invited to:

**Requirement Reference: G03R0010**

**Investigate the use of state of the art scientific techniques (in bioinformatics and proteomics) to develop new or improved methods for the identification of allergenic epitopes in novel (including GM) foods.**

Develop new DNA detection methods (or refine existing ones) for GM foods that can be used as simple screening methods for enforcement work

150. The Agency is the Competent Authority for the enforcement of the GM Food and Feed Regulation (EC 1829/2003). This lays down labelling requirements for GM food and feed ingredients. A threshold is in place for the accidental presence of GM material, below which labelling is not required (0.9% threshold for authorised genetically modified organisms (GMOs) and 0.5% for non-authorised GMOs where there has been a favourable safety assessment from an EC scientific committee). There have been calls by some stakeholders for the threshold limit to be reduced to 0.1%.
151. To enable checks into whether these labelling regulations are working in practice it is necessary for GM DNA detection methods in foods to be available using high through put, low cost methodologies. Polymerase chain reaction (PCR) methods require expensive equipment, which is inaccessible to the majority of Public Analyst laboratories. Further techniques therefore need to be developed for a range of GM ingredients, with particular focus on a screening method for raw materials for routine enforcement work.
152. Although Regulation EC 1829/2003 does not specify how the percentage of GM content is calculated, there has been recent debate on the fact that the DNA ratio of a certain GM crop may not necessarily be proportional to the weight ratio of that cultivar. The Commission has therefore recommended that rather than use a weight per weight ratio the results for quantitative analysis should be expressed as the percentage GM-DNA copy numbers in relation to target taxon specific DNA copy numbers calculated in terms of haploid genomes. Applications should demonstrate consideration of this issue.
153. Work carried out under the Agency's G01 programme aimed to use mass spectrometric techniques for the detection of GM protein and DNA. These and other techniques, need to be developed further so that they become low cost and accessible for use on simple instrumentation.

154. **Proposals** are therefore invited to:

**Requirement Reference: G03R0011**

**Develop new DNA detection methods (or refine existing ones) for GM foods that can be used as simple screening methods for enforcement work.**

## Further Information

155. **Before preparing your proposals** please contact the named persons below for advice and information on the specific scientific issues or the policy background/objectives :

**For Requirement References G03R0009 and G03R0010:**

**Dr David Jefferies**, Novel Foods, Supplements and Additives Division,

Tel: 0207 276 8573; Fax:0207 276 8564;

E-mail:david.jefferies@foodstandards.gsi.gov.uk

**For Requirement Reference G03R0011:**

**Dr Sonia Molnar**, Novel Foods, Supplements and Additives Division,

Tel: 0207 276 8571; Fax:0207 276 8564;

E-mail:sonia.molnar@foodstandards.gsi.gov.uk

156. All proposals should be sent, to be received **by 17:00 hrs on Friday 24 February 2006** to:

E-mail: FSA\_Remind@foodstandards.gsi.gov.uk

Post: (**For Requirement References G03R0009 and G03R0010:**)

Dr David Jefferies  
Novel Foods, Supplements and Additives Division  
Food Standards Agency  
Room 515B, Aviation House  
125 Kingsway  
London WC2B 6NH

Post: (**For Requirement Reference G03R0011:**)

Dr Sonia Molnar  
Novel Foods, Supplements and Additives Division  
Food Standards Agency  
Room 515B, Aviation House  
125 Kingsway  
London WC2B 6NH

**PLEASE READ CAREFULLY THE SECTION ENTITLED  
'GUIDANCE FOR APPLICANTS'  
BEFORE SUBMITTING YOUR PROPOSAL**

## **PROGRAMME M03 – TRANSMISSIBLE SPONGIFORM ENCEPHALOPATHIES (TSES)**

### **Introduction**

157. This research programme aims to protect the consumer from the possible risk of exposure to Bovine Spongiform Encephalopathy (BSE) infectivity from the food chain by providing the scientific basis for the development of proportionate and enforceable controls. It also provides information to enable consumers to make a reasoned choice in low risk and scientifically unproven situations.
158. EU TSE legislation is central to BSE policy that protects the consumer in both the EU and the UK from the risk of BSE in cattle and the possibility of BSE in sheep and goats. The main consumer protection is provided by the removal from the food chain of those tissues which research has shown present the greatest risk. All animals suspected of being infected with a TSE are removed from the food chain and tested to determine whether they have BSE (or scrapie). The legislation also requires all EU member states to undertake surveillance for TSEs, by testing central nervous system (CNS) samples. The annual number of BSE cases has declined in the EU, however cases have now been found in 4 countries outside the EU and a French goat born in 2000 was found to have had BSE. It is extremely important that any resulting changes in the legislation are based on sound science so that proportionate consumer protection can be maintained.
159. The legislation is based on the development of methods to detect TSEs and on research that has determined the susceptible species and the TSE infectivity within their tissues at various stages during the incubation of the disease (within the limits of the methods available). However, uncertainty still surrounds many areas of BSE and large information gaps have been highlighted. The M03 research programme aims to provide information to improve the knowledge base within the key gaps.

### **Research/Survey Requirements**

#### Tests to determine TSE infectivity levels in tissues (food).

160. The only definitive diagnostic test for TSEs both for strain typing and for infectivity titre remains the bioassay in animals. Such assays are time consuming, costly and have animal welfare and ethical implications. There is a requirement for research to establish the levels of TSE infectivity in edible tissues from infected animals. A measure of infectious units would permit more accurate assessments of the risk to humans of infection after exposure to these tissues.
161. Most of the published studies on the characteristic parameters of each TSE disease i.e. incubation period, pathology (lesion profiles) and infectivity titre used well-characterised animal models, in a standard environment, with characterised strains of agent. From these studies it has been established that many factors, for example the immune status of the recipient or various

treatments of the infectious inoculum, can all influence some or all of the characteristic parameters. But, with these factors controlled, and using the characterised models, it has been possible to establish a relationship between the titre in the tissues of animals at defined stages of disease progression.

162. Several studies have also suggested that changes to the homeostasis of biological molecules can be correlated to a stage in the progression of a TSE. In effect these are surrogate markers for disease progression. It has not been unequivocally demonstrated that the abnormal prion protein is the infectious agent of TSE diseases, thus there may be agent specific (i.e. not encoded by the host animal) markers of infectivity. Use of either type of marker could create a rapid and accurate way of calculating how much infectivity is likely to be present in an infected animal's tissues. This could include molecules that can be measured by their biological activity when administered to susceptible cell lines.
163. Studies are needed to identify and characterise markers in the tissues from a range of well-characterised animal models that correlate with TSE infectivity, as measured by animal bioassay. The validity of this approach against the known data from these animal models must be established.
164. It is important that proposals will also include confirmation of access to the relevant animal models and tissues necessary for the work.
165. **Expressions of interest** are therefore invited to:

**Requirement Reference: M03R0001**

**Identify and characterise markers to measure TSE infectivity, in a range of animal tissues, and establish the validity of this approach by correlation with the known infectivity titre by bioassay of these tissues in well characterised animal models.**

#### Assessing the risk to humans from TSEs

166. A number of TSEs are known to exist in animals that represent a real or potential risk to human health through consumption of meat from these species. Of these only BSE in cattle is known to be a risk to humans, resulting in deaths from Variant Creutzfeld-Jacob Disease (vCJD) in those homogeneous for methionine at codon129 in the prion protein gene.
167. BSE has been detected in goats and although sheep have not been proven to be harbouring BSE in the field, they can be infected experimentally. In France and Italy, cattle have also been found with BSE that does not conform to the standard biochemical profile, and different strains of scrapie are being detected as sensitive surveillance tests are applied to large numbers of animals. Chronic Wasting Disease (CWD) is endemic in North America (although it has not been detected in Europe).
168. In order to estimate the risk from such diseases more accurately, particularly BSE in sheep and atypical scrapies, there is a research requirement for the development and/or application of relevant experimental models to measure the risk to humans from other TSEs relative to BSE in cattle. Human susceptibility is not uniform and models able to address this variation are of particular interest.

169. Acceptable approaches would include, but are not restricted to, *in vitro* cell-free systems, cell-based assays and animal models. The approach must be applicable to more than one TSE, with the potential to be used in the future to rapidly assess the risk to humans from any newly found TSEs or TSE strains.
170. It is important that the proposal also includes confirmation that any reference TSE tissue samples required for the work will be available. It may be necessary to contact the IAAG , VLA Weybridge (*Maurice Bardsley*) to confirm availability of such tissues.
171. **Expressions of interest** are therefore invited to:

Requirement Reference: **M03R0003**

**Develop and/or apply methods to measure the relative human risk from TSEs.**

### Further Information

172. **Before preparing your expressions of interest** please contact one of the named persons below for an application pack and information on the specific scientific issues or the policy background/objectives:

**Dr Stephen Dixon**, TSE Division

Tel: 020 7276 8342

E-mail: [stephen.dixon@foodstandards.gsi.gov.uk](mailto:stephen.dixon@foodstandards.gsi.gov.uk)

**Dr Irene Hill**, TSE Division

Tel: 0207276 8324

E-mail: [irene.hill@foodstandards.gsi.gov.uk](mailto:irene.hill@foodstandards.gsi.gov.uk)

**Dr Lynne Bountiff**, TSE Division

Tel: 0207276 8328

E-mail: [lynne.bountiff@foodstandards.gsi.gov.uk](mailto:lynne.bountiff@foodstandards.gsi.gov.uk)

173. **Expressions of interest** should be sent, to be received **by 12:00 hrs on Monday 16 January 2006** to:

E-mail: [FSA\\_Remind@foodstandards.gsi.gov.uk](mailto:FSA_Remind@foodstandards.gsi.gov.uk)

Post:

Dr Stephen Dixon  
TSE Division  
Food Standards Agency  
Room 319C  
125 Kingsway  
London WC2B 6NH

**PLEASE READ CAREFULLY THE SECTION ENTITLED  
'GUIDANCE FOR APPLICANTS'  
BEFORE SUBMITTING YOUR PROPOSAL**

## PROGRAMME N02 – DIET AND CARDIOVASCULAR HEALTH

### Introduction

174. The Agency aims to provide the best possible advice to consumers on a healthy, balanced diet. This research programme aims to provide evidence to develop dietary recommendations and help reduce diet-related disease.
175. The Scientific Advisory Committee on Nutrition informs the Agency by evaluating the evidence to provide up-to-date and targeted advice for consumers. The Agency gathers evidence, by commissioning research, to support this e.g. for the determination of dietary recommendations.
176. The aim of the Diet and Cardiovascular Health Programme is to provide sound scientific evidence on the biological effects of diet on cardiovascular health, which can be used in the formulation of healthy eating recommendations for consumers. The scientific and technical objectives of the programme focus on long term, human *in vivo* intervention studies examining the effects of dietary modification on cardiovascular health.
177. Cardiovascular disease (CVD) remains the main cause of death in the United Kingdom (UK). CVD accounted for nearly 233,000, or 1 in 4, deaths in the year 2003. About half of all CVD deaths are from coronary heart disease (CHD) and one quarter from strokes. CHD causes about 114,000 deaths a year, which is 1 in 5 deaths in men, and 1 in 6 deaths in women. CHD is also the most common cause of premature death, accounting for 22% in men and 12% in women. Nearly all deaths from CHD are caused by a heart attack and almost 260,000 people suffered from a heart attack in 2003. Although death rates from CHD have been declining in the United Kingdom, morbidity from CHD is rising, mainly as non-fatal heart attacks and angina. This suggests that while heart attack survival rates are improving, the underlying prevalence of CHD is worsening. CHD costs the health care system in the United Kingdom around £3,500 million a year.
178. Deaths from CHD vary geographically (e.g. higher in the North of England and Scotland), between socio-economic groups (e.g. higher in manual workers) and between different ethnic groups (e.g. higher in South Asians). A variety of factors influence rates of CHD including smoking, physical activity, overweight and obesity, psychosocial factors, diabetes, blood pressure, blood cholesterol and diet.
179. Dietary constituents such as lipids, carbohydrates, minerals, vitamins and other bioactive compounds (e.g. polyphenols, carotenoids), have been implicated in the development and/or progression of a number of different diseases including cardiovascular disease, as have certain foods such as fish, fruits, vegetables, pulses, nuts and wholegrain cereals.
180. Work undertaken as part of this programme aims to examine the effects of the relative quantities of different foods and dietary constituents on cardiovascular health. Current dietary recommendations are incomplete and more evidence is required. There is, therefore, a need for randomised controlled trials to further assess and quantify the dose-response effects that different foods and their constituents have on cardiovascular health.
181. Numerous observational studies present consistent evidence that diets rich in plant foods (e.g. fruits, vegetables, pulses, nuts and wholegrain cereals)

protect against CVD. These observations have led to the recommendation (e.g. the government white paper on ‘*Choosing Health*’) that populations with high rates of cardiovascular disease, such as the UK, should substantially increase their consumption of fruit and vegetables.

182. Despite plasma antioxidant levels being inversely associated with CVD, intervention trials supplementing with antioxidant nutrients have failed to show any consistent benefit on CVD, and some trials have even suggested possible harmful effects in certain subgroups. There are limited experimental data exploring the relationship between plant food consumption and CVD risk. There is, therefore, a need for randomised controlled trials to further assess and quantify the dose-response effects of plant food intake (and relevant constituents therein) on cardiovascular health.

183. Proposals should address one or more of the following questions:

- How do dietary factors influence metabolic syndrome (insulin resistance syndrome) and related cardiovascular disease risk factors?
- How do dietary factors affect cardiovascular and haematological function? The determination of the effects of dietary factors on immune function, vascular function, inflammation and lipoprotein metabolism relative to cardiovascular health should also be considered.
- What is the optimal dietary intake for cardiovascular health for specific UK population subgroups with increased risk of CVD? The subgroups could be defined by gender, ethnicity, physical activity level, stage-of-life, social, geographic or genetic factors.

## **Research Requirements**

184. Proposals will be judged on the following criteria: relevance to the research requirements; scientific quality; and value for money.

185. Proposals should focus on the effects of diet on CVD risk rather than the mechanisms involved or method development. Proposals should have public health relevance and conduct dietary interventions that are achievable through diet. Food-based interventions, possibly in parallel with specific dietary constituents, are encouraged, although interventions solely involving specific dietary constituents may also be appropriate.

186. A high priority for nutrition research is for randomised controlled trials to investigate the dose-response relationship between the dietary intake of plant foods and their constituents and CVD risk. Proposals that focus on whole grain cereal or folate interventions are not invited, as there are already ongoing Agency projects in this area.

187. Also of high priority (for Requirement Reference N02R0001), is to determine the effect of different dietary patterns (a whole-diet approach) on CVD risk, in relation to nutrient adequacy, lifestyle (e.g. level of physical activity) and demographic variables. Dietary patterns may exert greater effects on cardiovascular health than individual foods or individual dietary constituents.

188. Consideration should be given (for Requirement Reference N02R0002) to nutrient adequacy, lifestyle (e.g. level of physical activity) and/or demographic variables.

189. **Proposals** are therefore invited to:

**Requirement Reference: N02R0001**

**To characterise the dose-response relationship between the dietary intake of specific plant foods and/or their constituents and CVD risk.**

**Requirement Reference: N02R0002**

**To characterise the effect of different dietary patterns on CVD risk.**

### **Further Information**

190. For advice on specific scientific issues and policy background to the programme, please contact

**Programme advisor:** John Stanley  
Tel: 07837 940615  
Email [john.stanley@trinity.ox.ac.uk](mailto:john.stanley@trinity.ox.ac.uk)

**Programme manager:** Dr Alison Tedstone, Nutrition Division  
Tel: 020 7276 8929, Fax 020 7276 8910  
Email [alison.tedstone@foodstandards.gsi.gov.uk](mailto:alison.tedstone@foodstandards.gsi.gov.uk)

191. Proposals should be sent, to be received **by 17:00 hrs on Friday 24 February 2006** to:

E-mail: [FSA\\_Remind@foodstandards.gsi.gov.uk](mailto:FSA_Remind@foodstandards.gsi.gov.uk)

Post:

Kristin Bayly  
Nutrition Division  
Room 808C  
Food Standards Agency  
125 Kingsway  
London WC2B 6NH

**PLEASE READ CAREFULLY THE SECTION ENTITLED  
'GUIDANCE FOR APPLICANTS'  
BEFORE SUBMITTING YOUR PROPOSAL**

## PROGRAMME N05 - NUTRITIONAL STATUS AND FUNCTION RESEARCH

### Introduction

192. The Agency aims to provide the best possible advice to consumers on a healthy, balanced diet. This research programme aims to provide evidence to develop dietary recommendations and help reduce diet-related disease.
193. The Scientific Advisory Committee on Nutrition informs the Agency by evaluating the evidence to provide up-to-date and targeted advice for consumers. The Agency gathers evidence, by commissioning research, to support this, e.g. for the determination of dietary reference values.
194. The programme has three broad research objectives, which reflect the processes linking ingestion of dietary constituents of nutritional significance to changes in tissue function:
  - developing biological markers of dietary exposure for dietary constituents and foods, and markers of status that are sensitive to changes in intakes or stores of those dietary constituents
  - using the above to determine the bioavailability of dietary constituents in foods
  - developing markers of target function – these are physiological or biochemical factors that relate to biological responses and are affected by foods and dietary constituents
195. The following functional outcomes, processes and end points have been highlighted: immune function; brain function; bone health; and metabolic function. Other areas may also be considered as the evidence base develops.
196. General concepts have also been integrated into the programme:
  - the use of human dietary intervention trials to determine dose-response relationships (at doses generally achievable through the diet) and, where appropriate, which incorporate a food-based approach
  - interactions between dietary components
  - consequences of nutritional status at different stages of life on later health
  - individual variation/vulnerability e.g. as defined by gender, age, social, geographic, ethnicity, environmental, and genetic factors
  - the use of subjects who are representative of the general population; 'at risk' subjects are suitable, but those with clinical diseases are not
197. It should be noted that other nutrition research programmes focus specifically on cardiovascular health and cancer – N02 & N12 – so applications focusing primarily on these end-points are not relevant to this programme. Also note that applications are not invited for food additives or food intolerance work under this programme.
198. The Nutritional Status and Function research programme generally funds *in vivo* human dietary intervention studies. Purely mechanistic *in vitro* and animal studies are generally not funded.

### Research Requirements

199. Proposals will be judged on the following criteria: relevance to the research requirements; scientific quality; and value for money.
200. Proposals should have public health relevance and conduct dietary interventions that generally are achievable through diet. Food-based interventions, possibly in parallel with specific dietary constituents, are encouraged, although interventions solely involving specific dietary constituents may also be appropriate.

#### Early life nutrition and childhood health

201. A body of evidence from epidemiological studies in humans, and studies in animals, suggests that nutritional status in early life modifies disease risk and future health outcomes. The 2000/1 National Diet and Nutrition Survey shows that a high proportion of young women have poor nutritional status for a range of nutrients, which could have particular implications for pregnancy and the healthy development of infants and children.
202. Compared with other countries, the UK has one of the highest rates for people with asthma. It is the most common long-term childhood medical condition, affecting 1.1 million in the UK – one in ten children. Nutritional status in early life has been associated with general respiratory health in childhood. It is possible that nutritional factors may modify underlying immune function and the susceptibility to develop atopic disease, e.g. asthma.
203. **Proposals** are therefore invited to:

Requirement Reference: **N05R0008**

**Characterise the effect of early life nutrition on childhood and/or adult health and, in particular, respiratory health**

204. Specific foods may cause allergies that present with respiratory symptoms, such as asthma and wheeze, and others may create a background of bronchial hyper-reactivity to the effects of other precipitants of asthma. However, these specific dietary factors are outside the scope of this research requirement (the Agency has a separate research programme covering food allergy and food intolerance (T07)).

#### Healthy ageing

205. The 1998 National Diet and Nutrition Survey shows that a high proportion of adults aged 65 years and over have poor nutritional status for a range of nutrients.
206. Ageing is associated with a number of significant changes in gastrointestinal function. Vitamin B<sub>12</sub>-deficiency occurs frequently in older people and is often caused by malabsorption of food-bound vitamin B<sub>12</sub>. A limitation in determining the public health significance is that the relationship between biochemically-defined vitamin B<sub>12</sub>-deficiency and neurological function is poorly characterised. A further complication is the limitations of the different biochemical measures (i.e. serum levels of B<sub>12</sub> or other functional markers) for determining vitamin B<sub>12</sub>-deficiency.

207. The Agency has several ongoing projects investigating the effects of different foods and nutrients on healthy ageing e.g. long chain n-3 polyunsaturated fatty acids, vitamin D, fruit and vegetables and micronutrients. Please see the Agency website for details. In this instance proposals are invited only for vitamin B<sub>12</sub> interventions.

208. **Proposals** are therefore invited to:

**Requirement Reference: N05R0009**

**Characterise the specific relationship between neurological function and markers of vitamin B<sub>12</sub>-deficiency in older people.**

209. It is important that proposals include studies of sufficient duration. Consideration should also be given to the subjects' nutritional status of other micronutrients.

210. Applicants are advised to refer to the draft SACN report on folate.

#### Markers of dietary exposure and status

211. The lack of robust biological markers of exposure and/or dietary status hinders the accurate determination of dietary reference values, and the development of dietary advice in relation to some nutrients. Sensitive and specific biological markers of exposure and status are required for different foods and dietary constituents (e.g. magnesium, potassium and zinc) of nutritional/public health significance. These markers would provide important information in dietary surveys and for the determination of dietary reference values, as well being of experimental importance in epidemiological and dietary intervention studies.

212. **Proposals** are therefore invited to:

**Requirement Reference: N05R0010**

**Develop biological markers of dietary exposure and status, for dietary constituents and foods**

#### School meals, dietary intake and effect on children's performance

213. The Government is committed (through Every Child Matters and the Choosing Health White Paper) to tackle and improve children's health and wellbeing. It has also set itself a target to halt the year on year rise in obesity amongst children under 11, by the year 2010.

Earlier this year the Department for Education and Skills set up the School Meals Review Panel (SMRP) to review the minimum nutritional standards for school meals in England. The SMRP recently published their report and called for revised food and nutrient based standards. Subsequent to the outcome of the consultation the standards will become statutory by 2006, with an implementation period that will see primary and secondary schools meeting standards by 2008 and 2009 respectively ([www.dfes.gov.uk/consultations/conDetails.cfm?consultationId=1319](http://www.dfes.gov.uk/consultations/conDetails.cfm?consultationId=1319)).

214. A healthy nutritional status during childhood is pivotal to ensure proper growth and development into adulthood. Children spend a significant amount of time at school and, as such, food consumed whilst at school makes an important contribution to their overall nutritional intake and hence their development. The implementation of the revised food/nutritional standards presents an opportunity to describe the effects of any nutritional change on aspects of children's behaviour and performance at school.
215. It is envisaged that any such approach will look at both primary and/or secondary school aged children. It is likely that it will take a before and after approach to investigate the impact of the food/nutrient standards on children's performance taking into account wider community influences. However, a longer follow-up would also be considered.
216. Proposals for this work should bring together expertise in terms of education, social science and nutrition.
217. **Proposals** are therefore invited to:

**Requirement Reference: N05R0011**

**Evaluate the impact of transformation of school meals in England and the dietary intake, behaviour and performance of school aged children.**

218. Methods that do not impose a burden upon the role and time input of teachers/staff, with minimal impact on the school day, and take account of wider school related reform are positively encouraged.

#### **Further Information**

219. Applicants are encouraged to discuss their proposals prior to submission with either the programme manager or the programme advisor.

**Programme advisor:** Dr Margaret Ashwell

Tel: 01462 742166, Fax: 01462 743166

Email [margaret@ashwell.uk.com](mailto:margaret@ashwell.uk.com)

**Programme manager:** Dr Alison Tedstone, Nutrition Division

Tel: 020 7276 8929, Fax 020 7276 8910

Email: [alison.tedstone@foodstandards.gsi.gov.uk](mailto:alison.tedstone@foodstandards.gsi.gov.uk)

220. Proposals should be sent, to be received **by 17:00 hrs on Friday 24 February 2006** to:

E-mail: [FSA\\_Remind@foodstandards.gsi.gov.uk](mailto:FSA_Remind@foodstandards.gsi.gov.uk)

Post:

Kristin Bayly  
Nutrition Division  
Room 808C

Food Standards Agency  
125 Kingsway  
London WC2B 6NH

**PLEASE READ CAREFULLY THE SECTION ENTITLED  
'GUIDANCE FOR APPLICANTS'  
BEFORE SUBMITTING YOUR PROPOSAL**

## PROGRAMME N12 - DIET AND COLONIC HEALTH

### Introduction

221. The Agency aims to provide the best possible advice to consumers on a healthy balanced diet. This research programme aims to provide evidence to develop dietary recommendations and help reduce diet-related disease, i.e. colorectal cancer.
222. The Scientific Advisory Committee on Nutrition informs the Agency by evaluating the evidence to provide up-to-date and targeted advice for consumers. The Agency gathers evidence by commissioning research, to support this, e.g. for the determination of dietary recommendations.
223. Colorectal cancer is the second most common cancer in both men and women in the UK, only surpassed by lung cancer and breast cancer respectively. There is strong epidemiological evidence that a substantial number of dietary factors, and factors related to the diet, may modify the risk of colorectal cancer, e.g. diets rich in plant foods are thought to be protective. A clear causal link, however, between diet and the risk of colorectal cancer, has yet to be fully established.
224. Colorectal cancer causes about 10 % of all cancers deaths in the UK, which represents about 16,000 deaths per year. About 35,000 cases of colorectal cancer are diagnosed each year in the UK. The Government White Paper *Our Healthier Nation* set targets to reduce death rates from cancer by at least a fifth by the year 2010, which would save 100,000 lives. Part of the strategy to reduce cancer must focus on colorectal cancer. It is important to identify gaps in our current knowledge in terms of prevention of this type of cancer.
225. Dietary intervention studies that use incident cancer as an end point are large, lengthy and costly, and in some cases impractical. For this reason, the development of surrogate end points, biomarkers of preclinical carcinogenesis, is a priority. These offer the potential of smaller, shorter and less costly studies with achievable dietary interventions.
226. The initial focus for this programme is the development of validated diet-related surrogate end points for colorectal cancer risk. Once these have been established they can be used in dietary intervention trials.

### Research Requirements

227. Proposals should focus on human studies. As several ongoing projects within the N12 programme are investigating the role of folate in colorectal cancer risk, this area is currently of low priority.
228. Food-based approaches would be welcomed, and those using dietary constituents should use doses generally achievable through the diet.
229. The role of heterocyclic amines and nitroso compounds will not be considered as it falls within the remit of the Agency's Risk Assessment research programme (T01).

230. **Proposals** are therefore invited to:

**Requirement Reference: N12R0004**

- i. **Develop, characterise and/or validate reliable diet-related surrogate end points for colorectal cancer, with a view to developing, in the long term, dietary advice for the UK population.**
- ii. **Investigate the extent to which surrogate tissues are appropriate with regard to i above.**

### **Further Information**

231. Applicants are encouraged to discuss their proposals prior to submission with the programme manager.

**Programme co-ordinator:** Dr Peter Sanderson  
Email: psander@tiscali.co.uk

**Programme manager:** Mamta Singh, Nutrition Division  
Tel: 020 7276 8919, Fax 020 7276 8906  
Email: mamta.singh@foodstandards.gsi.gov.uk

232. Proposals should be sent, to be received **by 17:00 hrs on Friday 24 February 2006** to:

E-mail: FSA\_Remind@foodstandards.gsi.gov.uk

Post:

Kristin Bayly  
Nutrition Division  
Room 808C  
Food Standards Agency  
125 Kingsway  
London WC2B 6NH

**PLEASE READ CAREFULLY THE SECTION ENTITLED  
'GUIDANCE FOR APPLICANTS'  
BEFORE SUBMITTING YOUR PROPOSAL**

## PROGRAMME R04 - RADIOACTIVITY IN FOOD

### Introduction

233. The Food Standards Agency has a duty to protect consumers from unacceptable risks from radioactivity in foods. To perform this duty, the Agency needs to assess the concentrations of radioactivity in foods as a result of proposed or historical authorised discharges of radioactivity.

### Research/Survey Requirements

#### Transfer of radioactivity from seaweed to terrestrial foods

234. The Agency has the strategic objective of reducing the risks to consumers from chemical and radiological contamination of foods. To assist it in achieving this objective, research is required into the impact of past, present and future marine discharges of radioactivity on consumers of terrestrial foods. In particular the Agency is interested in those areas where agricultural practices such as the use of seaweed as a fertiliser/soil conditioner, or as grazing for sheep mean that the transfer of radionuclides to terrestrial foods may be enhanced.

235. This work will be used to assist the Agency in deciding whether additional monitoring of foods is required in those areas where these practices occur.

236. Research is required to:

- establish the geographical spread and extent of the use of seaweed as a fertiliser/soil conditioner and as grazing or fodder (adventitiously or on purpose).
- obtain information on the amounts of seaweed applied to soils, and used as fodder or grazed pasture.
- identify the composition and proportion of the diet to which these crops and /or animal produce contribute.
- obtain information on the potential or actual transfers of radioactivity, particularly those radionuclides of greatest radiological significance (including technetium-99 (<sup>99</sup>Tc)), from the marine environment to terrestrial foods.
- provide estimates of the exposure of consumers eating crops grown in soil to which seaweed has been applied, or consuming products from animals that have fed on seaweed.
- develop a methodology by which estimates of the dose can be updated in the light of new information.

237. It is anticipated that this work will take approximately two years to complete at an estimated cost of between £55k - £60k.

238. This requirement may be suitable for a collaborative proposal between two or more contractors.

239. **Proposals** are therefore invited to:

Requirement Reference: R04R0001

**Investigate the transfer of radioactivity from seaweed to terrestrial foods.**

### Further Information

240. **Before preparing your proposals** please contact the named person below for advice and information on the specific scientific issues or the policy background/objectives:

**David Webbe-Wood**, Emergency Planning, Radiation and Incidents Division,

Tel: 020 7276 8742; Fax: 020 7276 8789;

E-mail: david.webbe-wood@foodstandards.gsi.gov.uk

#### Investigation of non-standard radionuclides

241. As part of the Agency's planning for emergencies involving radiological releases, data on the environmental behaviour, uptake and transfer to edible portions of plants and animals are used to develop pre-planned intervention levels. Current data held by the Agency relates to those radionuclides of greatest concern following a release from a civil reactor or a weapons accident. The Agency wishes to extend its data set to include those radionuclides which could be released from a decommissioning site, industrial and fugitive sources.

242. **Proposals** are therefore invited to:

Requirement Reference: **R04R0002**

**Derivation of data on the transfer of non-standard radionuclides to edible parts of plants and animals.**

#### **Further Information**

243. **Before preparing your proposals** (for Requirement Reference R04R0002) please contact the named person below for advice and information on the specific scientific issues or the policy background/objectives:

**Jocelyn Harvey**, Emergency Planning, Radiation and Incidents Division,

Tel: 020 7276 8749; Fax: 020 7276 8789;

E-mail: jocelyn.harvey@foodstandards.gsi.gov.uk

#### Iodine in fruits

244. The Agency has the strategic objective of reducing the risks to consumers from chemical and radiological contamination of foods. To assist it in achieving this objective, the Agency requires research into the transfer of iodine species emitted from nuclear licensed sites onto fruits. This project will seek to demonstrate whether the uptake of iodine-129 ( $^{129}\text{I}$ ) into fruit, from the discharge of gaseous radioiodine is caused by direct deposition of  $^{129}\text{I}$  onto the fruit plant (leaves, stem, fruit buds) and/or from deposition onto the soil and uptake into fruit via the roots of the plant. The first part of this work i.e. the cultivation, collection and cold storage of these samples was successfully carried out in a previous project. The focus of this work is to (a) successfully calibrate a number of similar fruit matrix analytical standards and (b) analyse fruit samples for levels of  $^{129}\text{I}$ .

245. **Proposals** are therefore invited to:

Requirement Reference: R04R0003

**Demonstrate the capability to analyse for  $^{129}\text{I}$  by reporting  $^{129}\text{I}$  concentrations and  $^{129}\text{I}/^{127}\text{I}$  ratios in a series of three analytical standards.**

**Following successful completion of the analysis of iodine calibration standards, analyse a batch of 50 fruit samples for  $^{129}\text{I}$ .**

#### **Further Information**

246. **Before preparing your proposals** (for Requirement Reference R040003) please contact the named person below for advice and information on the specific scientific issues or the policy background/objectives:

**Stuart Conney**, Emergency Planning, Radiation and Incidents Division,

Tel: 020 7276 8782; Fax: 020 7276 8789;

E-mail: [stuart.conney@foodstandards.gsi.gov.uk](mailto:stuart.conney@foodstandards.gsi.gov.uk)

247. All proposals should be sent, to be received **by 17:00 hrs on Friday 24 February 2006** to:

E-mail: [FSA\\_Remind@foodstandards.gsi.gov.uk](mailto:FSA_Remind@foodstandards.gsi.gov.uk)

Post:

Adenike Banjoko  
Emergency Planning, Radiation and Incidents Division  
Food Standards Agency  
Room 715B, Aviation House  
125 Kingsway  
London WC2B 6NH

**PLEASE READ CAREFULLY THE SECTION ENTITLED  
'GUIDANCE FOR APPLICANTS'  
BEFORE SUBMITTING YOUR PROPOSAL**

## PROGRAMME T01 – RISK ASSESSMENT

### Introduction

248. The T01 programme on risk assessment seeks to quantify, characterise and reduce uncertainty in the risk assessment process that underpins the formulation of Agency advice to the consumer and ensures the safety of chemicals in food. It includes research requested by scientific advisory committees as being important to address uncertainties in the risk assessment of specific food chemicals.

### Research Requirement

#### Investigating the effects of exposure to multiple chemicals occurring in food

249. The general public is increasingly aware that they are exposed simultaneously to multiple chemicals through the diet. Food is a complex mixture of chemicals, including the naturally occurring chemical constituents of food, food additives, compounds generated during cooking and processing, and substances entering the food chain as contaminants. The current paradigm of assessing risk for individual chemicals cannot generate evidence that combined exposure to multiple chemicals alters risk and produces unforeseen health effects.

250. The Committee on Toxicity of Chemicals in Food, Consumer Products and the Environment (COT) recently agreed that many of the general conclusions of its 2002 report “Risk assessment of mixtures of pesticides and similar substances” apply to food additives and contaminants. The COT highlighted the need for critical assessment of the dose levels at which combination effects are investigated and reported. Where interactions have been demonstrated the COT concluded that these were apparent “usually at high concentrations or high exposure levels, which are probably unrepresentative of exposure doses, certainly for food”. The COT approach and uncertainties in the evidence are described in paragraphs 1.61 to 1.71 of the 2004 Annual Report (<http://www.food.gov.uk/multimedia/pdfs/cotcomcocoreport2004.pdf>).

251. This research requirement requests original proposals designed to investigate the effects of combined exposure to two or more chemicals found in food. Chemicals being investigated must be of relevance to exposure through the diet, as should the test system being proposed. Pesticides and veterinary medicine residues are excluded from this requirement as they are the focus of the Agency’s T10 programme. Consideration should be given to:

- the levels at which the selected chemicals commonly occur in food;
- justification for the potential usefulness of mixture studies if being performed at doses significantly removed from these levels; and
- the modes of action of the mixture components.

252. The anticipated outcome of the research should provide sound scientific evidence to support the development of Agency policy relating to chemical mixture risk assessment.

253. Proposals should include a clear rationale for the study design and evidence of a complete knowledge of current methodologies for conducting meaningful

mixture studies and their subsequent statistical analysis. Particular attention should be given to comprehensively detailing the design and analysis of the mixture studies. Proven experience of mixture testing procedures will be considered advantageous.

254. **Proposals** are therefore invited to:

**Requirement Reference: T01R0007**

**Conduct research to investigate whether combined exposure to multiple chemicals in the diet could lead to harmful effects not predicted by risk assessment of single substances.**

### **Further Information**

255. **Before preparing your proposals** applicants are recommended to read the conclusions of the COT report on mixtures of pesticides. Please contact the named persons below for advice and information on the specific scientific issues or the policy background/objectives:

**Caroline Tahourdin**, Chemical Safety Division

Tel: 020 7276 8520; Fax: 020 7276 8513

E-mail: [caroline.tahourdin@foodstandards.gsi.gov.uk](mailto:caroline.tahourdin@foodstandards.gsi.gov.uk)

**Nissanka Rajapakse**, Chemical Safety Division

Tel: 020 7276 8543; Fax: 020 7276 8513

E-mail: [nissanka.rajapakse@foodstandards.gsi.gov.uk](mailto:nissanka.rajapakse@foodstandards.gsi.gov.uk)

256. Proposals should be sent, to be received **by 17:00 hrs on Friday 24 February 2006** to:

E-mail: [FSA\\_Remind@foodstandards.gsi.gov.uk](mailto:FSA_Remind@foodstandards.gsi.gov.uk)

Post:

Keith Butler  
Chemical Safety Division  
Food Standards Agency  
Room 511C, Aviation House  
125 Kingsway  
London WC2B 6NH

**PLEASE READ CAREFULLY THE SECTION ENTITLED  
'GUIDANCE FOR APPLICANTS'  
BEFORE SUBMITTING YOUR PROPOSAL**

## PROGRAMME S14 – RESEARCH AND SURVEILLANCE IN SCOTLAND

### Introduction

257. The Food Standards Agency in Scotland (FSAS) supports a programme of research and surveillance to inform its future policy decisions. This programme ensures that specific Scottish issues are properly addressed and that the Agency's UK-wide research and surveillance programme takes full account of Scottish concerns. The Scottish research portfolio is clearly and transparently linked to the aims and objectives set out in the Agency's Strategic Plan and FSAS Business Plan. Like FSAS itself, the FSAS research and surveys programme is funded through the Scottish Vote to improve food safety and standards within Scotland.

### Research/Survey Requirements

#### Contribution of sources of infection to human salmonellosis in Scotland

258. Salmonella is the second most frequently isolated bacterium associated with gastroenteritis in the UK. Although there has been a significant reduction in human cases of infection in recent years, provisional figures show that there were still 1143 reported cases of salmonella in Scotland in 2004. Epidemiological studies have shown that infection can be acquired through a number of foodborne pathways (eg poultry and pork) as well as through contact with a wide range of animal species and person to person spread. However, the significance of each of these pathways is still largely unknown. FSA Scotland requires a greater understanding of the contribution made by these various pathways in order that suitable intervention strategies can be developed and implemented to reduce the prevalence of salmonellosis in Scotland and throughout the UK.

259. **Proposals** are therefore invited to:

Requirement Reference: S14R0024

**To quantify the contribution of the various sources of infection to human salmonellosis in Scotland using existing information**

### Further Information

260. **Before preparing your proposals** please contact the named person below for advice and information on the specific scientific issues or the policy background/objectives:

**Jane Horne**, FSA Scotland,

Tel: 01224 285169; Fax: 01224 285110;

E-mail: jane.horne@foodstandards.gsi.gov.uk

261. Proposals should be sent, to be received **17:00 hrs on Friday 24 February 2006** to:

E-mail: [FSA\\_Remind@foodstandards.gsi.gov.uk](mailto:FSA_Remind@foodstandards.gsi.gov.uk)

Post:

Dr Jane Horne  
Food Standards Agency Scotland  
6th Floor  
St Magnus House  
25 Guild Street  
Aberdeen AB11 6NJ

**PLEASE READ CAREFULLY THE SECTION ENTITLED  
'GUIDANCE FOR APPLICANTS'  
BEFORE SUBMITTING YOUR PROPOSAL**

## PROGRAMME CO-ORDINATORS

### PROGRAMME C03 - MYCOTOXINS AND PROCESS CONTAMINANTS (INCLUDING NITRATE)

#### Introduction

262. Many foods contain naturally occurring chemicals such as mycotoxins or chemicals produced during food processing (process contaminants) that have the potential to cause deleterious effects when consumed. Mycotoxins are groups of toxic compounds produced by moulds and are found in a wide range of foodstuffs and animal feedstuffs. Process contaminants are formed when components of food undergo reactions during processing such as fermentation, acid hydrolysis, kilning, curing, smoking, drying, as well as industrial or domestic cooking.
263. Programme C03/C04 provides information to help reduce consumer exposure to chemical contaminants such as mycotoxins (C03) and food processing contaminants (C04). All parts of the food chain have a responsibility to ensure that the food and feed they sell is free from illegal or unsafe levels of contaminants, including naturally occurring substances such as mycotoxins and processing contaminants.
264. The programme aims to generate detailed and robust information on mechanisms of formation, mitigation measures etc. Such information helps to develop Food Standards Agency policy in this area, including the need for relevant controls to reduce exposure to chemical contaminants via food, thus reducing the risk to consumer health.
265. Further details of the programmes are included in the Food Standards Agency Research and Survey Programmes Annual Report 2005: [www.food.gov.uk/science/research/researchannualreports/](http://www.food.gov.uk/science/research/researchannualreports/)

#### Research/Survey Requirements

##### Co-ordinator for official control laboratories (OCLs) for mycotoxins and environmental contaminants

266. The European Commission (EC) Regulation Number 882/2004 sets out the official controls to be performed to ensure the verification of compliance with feed and food law, animal health and animal welfare rules. Article 8 of this Regulation requires the Competent Authorities (the FSA in the UK), to ensure the effectiveness of official controls. The Regulation also provides for Community Reference Laboratory (CRL) and National Reference Laboratories (NRL) to be set up. The Commission have now indicated that they wish to do so for mycotoxins, heavy metals, dioxins, polychlorinated biphenyls (PCBs) and polycyclic aromatic hydrocarbons (PAHs). The general missions/duties of NRLs are established in Article 33 of the above Regulation and additional responsibilities and tasks of CRLs/NRLs are to be laid down by comitology procedure. CRLs activities will include: establishing a network of NRLs, organising workshops and ring trials, developing new analytical methods

(including standardisation), organisation of storage of reagents and assessment of NRL performance.

267. A co-ordinator is required to, amongst other duties, ensure that information on documented procedures is kept updated and that pertinent European standards are circulated to the official control laboratories. The role will also require; the co-ordination of UK participation in the CRL inter-laboratory exercises, organisation of workshops on methodology, and liaison with the relevant CRLs.
268. The Food Standards Agency seeks to appoint an individual, or a group of individuals, with knowledge and experience of the roles performed by the Agency, United Kingdom Accreditation Service (UKAS), NRL and EU and to co-ordinate the existing national food control laboratories in the UK. The successful candidate will act as a co-ordinator and adviser for dissemination of pertinent information on mycotoxins with regard to EC Regulation No. 882/2004, so that all OCLs are working to the same methods and criteria both at national and European level.
269. This requirement applies to mycotoxins, heavy metals, dioxins, polychlorinated biphenyls (PCBs) and polycyclic aromatic hydrocarbons (PAHs).
270. **Applications** are therefore invited for:

Requirement Reference: C03R0009

**A co-ordinator for official control laboratories (OCL) for mycotoxins and environmental contaminants.**

271. Those wishing to apply are asked to submit a CV, along with supporting evidence, outlining experience relevant to the programme together with an indication of per diem costs including any necessary secretarial support. Related travel and subsistence costs are considered separately.

#### **Further Information**

272. **Before preparing your application** please contact the named person below for advice and information on the specific scientific issues or the policy background/objectives:

**Dr Wendy Matthews**, Chemical Safety Division (CSD2)

Tel: 020 7276 8707

E-mail: wendy.matthews@foodstandards.gsi.gov.uk

273. Applications should be sent, to be received **by 17:00 hrs on Friday 24 February 2006** to:

E-mail: FSA\_Remind@foodstandards.gsi.gov.uk

Post:

Ms Adenike Banjoko  
Emergency Planning, Radiation and Incidents Division  
Food Standards Agency  
Room 715C, Aviation House  
125 Kingsway

London WC2B 6NH

**PLEASE READ CAREFULLY THE SECTION ENTITLED  
'GUIDANCE FOR APPLICANTS'  
BEFORE SUBMITTING YOUR PROPOSAL**

## PROGRAMME C03 – MYCOTOXINS AND PROCESS CONTAMINANTS (INCLUDING NITRATE)

### Introduction

274. The Agency funds a wide range of research projects that underpin policy development in the area of mycotoxins. Further details of the programmes are given with the research requirements for C03/C04 earlier in this document, and are included in the Food Standards Agency Research and Survey Programmes Annual Report 2004

([www.food.gov.uk/science/research/researchinfo/researchportfolio/researchannualreports](http://www.food.gov.uk/science/research/researchinfo/researchportfolio/researchannualreports))

275. External Programme Co-ordinators are involved in the development, monitoring, evaluation and dissemination of Agency research in a specific area or discipline. A brief outline of generic Programme Co-ordinator duties is given in this Research Requirement document under 'Guidance for Applicants – Monitoring of Progress' at paragraph 53 of Research Requirements Document 20.

### Research/Survey Requirements

#### Mycotoxins Programme Co-ordinator (Programme C03/C04)

276. A Programme Co-ordinator is required to assist the Chemical Safety Division in maintaining the mycotoxins research portfolio. The combined cost of these programmes, which comprised some 25 projects, was £656,000 in financial year 2004/05.

277. The Co-ordinator should have an established academic record including suitable research, preferably with experience of research management.

278. The Co-ordinator will liaise closely with research contractors and the staff of the Policy Division to ensure the smooth running of research projects by setting up, undertaking and reporting on meetings with contractors, by critically reviewing and appraising project deliverables and by sitting on project appraisal panels.

279. The Co-ordinator will also be encouraged to identify new research needs and actively contribute to project formulation and development to ensure that Agency research addresses policy needs.

280. It is anticipated that the role will require 50-80 days per annum and will include regular visits to the research contractors at their place of work. The appointment will be for a maximum of 5 years, and will be reviewed annually.

281. **Applications** are invited for a:

Requirement Reference: **C03R0012**

#### **Programme Co-ordinator for the Agency mycotoxins research portfolio.**

282. Applicants interested in this post are asked to submit a CV along with supporting evidence outlining experience relevant to the programme and in project/programme management together with an indication of *per diem* costs, including any necessary secretarial support. Related travel and subsistence costs are considered separately

### **Further Information**

283. For advice on specific scientific or policy background to the Programme or these requirements, please contact:

**Dr Wendy Matthews**, Chemical Safety Division

Tel: 020 7276 8707

Email: [wendy.matthews@foodstandards.gsi.gov.uk](mailto:wendy.matthews@foodstandards.gsi.gov.uk)

284. Applications should be sent, to be received by **17:00 hrs on Friday 24 February 2006** to:

E-mail: [wendy.matthews@foodstandards.gsi.gov.uk](mailto:wendy.matthews@foodstandards.gsi.gov.uk)

Post:

Dr Wendy Matthews  
Chemical Safety Division  
Food Standards Agency  
Room 707C  
Aviation House  
125 Kingsway  
London WC2B 6NH

**PLEASE READ CAREFULLY THE SECTION ENTITLED  
'GUIDANCE FOR APPLICANTS'  
BEFORE SUBMITTING YOUR PROPOSAL**

## **Guidelines for the Completion of Application Form RCU-A3 for Research and Survey Contracts with the Food Standards Agency**

This document provides guidance to potential applicants on how to complete form RCU-A3.

The form must be used by external organisations when applying for research or survey contracts with the Food Standards Agency. The form is designed for project proposals involving single or multiple participants.

For each project proposal, applicants must submit **1 electronic copy** of the completed form in Word 97 format (as floppy disk, CD-ROM or as an e-mail attachment) plus **1 printed copy with original signatures**.

**THE LATEST VERSION OF THE RCU-A3 FORM (REV 08/04) MUST BE USED – THIS CAN BE DOWNLOADED FROM THE WEBSITE AT:**

**[www.food.gov.uk/science/research/researchfunding/rrd](http://www.food.gov.uk/science/research/researchfunding/rrd)**

**PLEASE COMPLETE THE FORM USING A FONT SIZE NO LESS THAN 12pt**

Using the RCU-A3 form

**We are aware of a number of technical problems with the new form, these are due to the bookmarks that have been inserted for compatibility with the Agency's new electronic research management system (REMIND). Please do not submit proposals using a previous version of the form.**

**To show bookmarks select the 'Bookmarks' option in Tools/Options.**

- Some boxes do not expand correctly, forcing new pages to be created (this is also a standard Word problem that has been experienced previously)
- Errors may occur in the page numbering
- The 'word count' tool is disabled
- The 'spellcheck' tool is disabled
- The 'endnote' and 'footnote' tools are disabled - it is suggested that the Harvard Referencing System is used to provide references
- Headers and footers are disabled
- Difficulties in attaching charts and diagrams may occur (again this is a problem experienced with the previous form also)

You may encounter none, some or all of these problems. The appraisal of your proposal will not be affected by these problems. Any supporting documents, charts and diagrams that you are unable to place in the RCU-A3 form should be attached to the signed hard copy and included as a separate file attachment in your email to FSA\_Remind@foodstandards.gsi.gov.uk

The Application Form is divided into six discrete Parts:

### **The Proposal Overview**

**Part A** Relevance to the research required by the Food Standards Agency

**Part B** Description of Scientific / Technological Objectives and Workplan

**Part C** Project Finances

**Part D** Suggestions for Appraisal Panel Members

**Part E** Declarations

Fields known as **Bookmarks** have been used throughout this form. **It is extremely important that these fields are not deleted or overwritten.** In order to view where these are in this document go to the 'Tools' menu, select 'Options' and check 'Bookmarks' in the 'View' tab. In some instances use of the Tab key to move between fields within the form will result in the over-writing of these bookmarks.

**The text boxes used in the form are auto-expandable throughout.** Tabbing between fields in text boxes within this form creates additional rows in the table rather than moving into the next section.

The use of the tab key to move into many fields within this form results in the Bookmarks being over-written. It is therefore advised that the cursor is used to click into fields, using the mouse.

However, please note that when entering amounts in the project finance tables that the tab key must be used after completing each field.

If problems are encountered, it is acceptable for the information requested to be appended on additional sheets.

## **Proposal Overview**

Details for successful proposals presented in this section will be reproduced on the Research pages of the Agency website.

## **Full Project Title**

The Full Title should reflect the aim of the project clearly and succinctly.

## **Working Title**

A short working title of no more than 30 characters (including spaces) should be given. The short working title should appear on each page of the signed hard copy proposal and attached documents, which is the official legal document, as this will help prevent any handling errors. It is not possible to insert this on the RCU-A3 form on every page.

## **Requirement Reference Number**

Each requirement has a unique reference number that must be clearly quoted on the RCU-A3 form, e.g. Q01R0003. This is given in the text of each requirement in the RRD.

## **Project Lead Contractor**

This is the person responsible for the project proposal who acts on behalf of all the participating organisations in a project consortium. If successful, the contracting organisation or the Lead Contractor will take overall responsibility for delivery of the agreed work plan, for themselves and other participants, and for the financial aspects of the project. This will include administering any payments to other participants or sub-contractors in the project.

## **Proposal Summary**

The summary should be written by the project Lead Contractor and should provide the reader, at a glance, with a clear understanding of the proposal's objectives, how the objectives will be achieved and their relevance in the context of the issue being addressed. The summary should be written in plain text and should use no more than 1000 characters, including spaces.

**Applicants should note that it will not be possible to process applications in the absence of a proposal summary.**

## **Summary of Total Estimated Costs, including VAT**

This should include the costs for all participants of the proposed work that will be paid for by:

- the Food Standards Agency,
- bodies other than the Agency including EU funding, and
- 'in-kind' contributions, expressed as cash value, as appropriate.

The latter could include consultancy / person time not costed for in the proposal or samples of materials donated for use in the project.

If any contractor or participant expects to charge VAT for any part of the work, the costs must be clearly stated as the cost excluding VAT, the VAT chargeable and the

cost including VAT. **VAT charges not identified in the proposal or included in any resulting contract will not be paid by the Agency.**

**Please note:** the Agency is not able to provide advice or opinions to applicants on the nature of the supply to the Agency nor on the status of any supplies made to the contractor by their own subcontractors. It is the responsibility of the contractor or participant to confirm the nature of their supply to the Agency with their own Finance Department or their local VAT office if there is any doubt as to the nature of the supply being made.

If the Agency is concerned about the nature of the VAT being levied on the Agency, the Agency may require the applicant to obtain written confirmation from HM Customs.

## **Part A – Relevance of the proposed work to the Food Standards Agency’s requirements**

This part of the form should be a maximum of 2 sides of A4 single-spaced typescript and should:

- describe the scientific or technical problem being addressed in the proposal;
- summarise the state-of-the-art in the research area;
- explain the scientific and technological basis for the work proposed; and
- explain in what respect the project advances the state-of-the-art in the area or may be expected to provide the information or outcome indicated by the requirement.

## **Part B – Description of Scientific / Technological Objectives and Workplan**

**If the proposal is successful, information detailed here will form the Scope of Work section of the research contract.**

**Please therefore, restrict your entry to the salient points and set these out clearly and concisely.**

The description of the scientific/technological objectives and workplan ideally should not exceed 25 pages and should be written in the third person. It should detail:

- the objectives and expected achievements;
- the approaches and research plan;
- project milestones;
- project deliverables;
- the role of participants;
- project management; and
- exploitation and dissemination plans.

## **B1. Objectives and Expected Achievements**

This section should detail the scientific / technological objectives which the project may be expected to achieve, expressed in a measurable and verifiable form. All objectives declared should be numbered (e.g. 01, 02, 03).

Vague expressions such as 'several experiments will be conducted' or 'the performance will be improved' should be avoided. Instead use statements that are specific and measurable, such as 'Complete a review of .....,', 'Evaluate and compare results obtained from .....,', 'Develop a standardised method to determine X in Y, with supporting validation data in accordance with .....,'

This section should describe the progress to be expected with regard to the state-of-the-art, as well as the different tasks to be carried out.

## **B2. Approaches and Research Plan**

This section should detail the experimental approach(es) that the applicant proposes to use to realise the scientific objectives detailed in Section B1, and set out the proposed workplan for the life of the project. Approaches should be numbered in the same way as the objectives.

The Approaches and Research Plan should provide details of the tasks and sub-tasks that are necessary to realise the scientific objectives detailed in Section B1. For each task and sub-task the following information should be provided:

- The task or sub-task number.
- Which participant(s) will be involved in the task or sub-task.
- The estimated person-months of effort required for completion of task or sub-task.
- The estimated duration of the task or sub-task.
- An overview of the methodology to be used, including statistical design and analysis as required.
- Details of any links or interdependence of tasks with others tasks, i.e. how does the task relate to other tasks in the project?

Once all tasks and sub-tasks are described in this way, please include a flow chart (e.g. a Gantt Chart or PERT Chart) to illustrate the flow of information between tasks and sub-tasks to facilitate an at-a-glance panoramic view of the project. You will probably need to include this as a separate electronic file, please also attach as a hard copy to your signed application.

## **B3. Project Milestones**

Milestones are the key points within the lifetime of a contract where significant events occur or are achieved within the project. As for project objectives, avoid milestones that are difficult to report on. Proposed milestones defined in this section should cross-reference to the project flow chart(s). It is suggested that a maximum of 6 milestones are set for each year of a project.

Each milestone should relate to one scientific objective, i.e. the milestones for objective 01 should be numbered 01/01, 01/02 etc., so that:

Milestone 01/02 is Objective 1/Milestone 2, and

Milestone 02/01 is Objective 2/Milestone 1.

Each milestone title should not be more than 100 characters (including spaces); a description is optional.

With regard to timing of milestones (and their related deliverables), if a particular output is due at the end of a financial or project year, the milestone date should be e.g. 31 March, and not 1 April. The success in meeting this milestone will then appear in the first Annual Report for the project.

Where work is seasonal, please express milestones in day, month and year form (e.g. 31/07/2004). If work is not seasonal, please express milestones in day, month and year form **and** in terms of the number of months from the proposed start date e.g. month 15.

#### **B4. Project Deliverables**

A deliverable is a measurable output or proof/evidence that a milestone has been achieved, for example the production of an interim report.

A list of all deliverables by participant, task, sub-task and year in the project must be included in this section. The management of the project, as well as the evaluation of the project's progress, will be heavily based upon this list of deliverables.

Items to be integrated in this list may include:

- periodic reports containing all results and conclusions from tasks and sub-tasks;
- production of minutes of all meetings (e.g. symposia, project presentation meetings) or workshops related to the project;
- all publications produced during the project;
- presentation material such as pictures, slides, transparencies, graphs, etc.;
- production of a standard operating procedure; and
- the final project report, including a report of how the project results have been or are to be reported.

#### **B5. Role of Participants**

This section should give details of the involvement and responsibilities of the main participants in the project.

NB – In this sense the term participants is taken to mean the organisations involved in the project (including the project Lead Contractor, other collaborators and any major sub-contractors) and not individuals. Key individuals and their role in the proposal can be identified in Part C, section PP1.

The information in this part of the form is important as it is used to assess two of the selection criteria; 'skills and resources of contractor' and 'cost of work'.

For each participant the following information should be provided:

- the participant's name;
- the objectives of that participant within the project;
- their involvement in the project on a task-by-task basis, including sub-tasks;
- a summary of staff effort, per grade, per year; and

- a timetable of planned research activities by participant.

## **B6. Project Management (inc. quality assurance)**

In this section the project Lead Contractor should describe how the progress of the project will be managed, which will include aspects such as the decision-making structures and the communication flow and co-ordination of tasks between consortium members.

Full details should be given of the measures that will be taken to manage and assure the quality of the work. This should include information on the quality assurance (QA) systems, of both the research processes and science, that have been implemented or are planned, and should be appropriate to the work concerned. You should also describe any specific measures that will be used and how these will be implemented, including the assessment criteria to be used for the final evaluation of project results. All QA systems and procedures should be clear and auditable, and may include compliance with internationally accepted quality standards, e.g. ISO 9001, ISO17025, UKAS accreditation or GLP. Details of current analytical performance and/or participation and recent satisfactory performance in a proficiency scheme such as FAPAS should be given where relevant and available. Applicants are also required to acknowledge they are aware of the new Joint Code of Practice for Quality Assurance in Research. They should use its provisions as the basis for information provided in this section.

**From 1 June 2004**, it is expected that all successful applications for Agency-funded research will be performed in compliance with the requirements of the Joint Code of Practice for Research. The Agency reserves the right to audit projects against the Code. Applications will **not** be automatically rejected if the project cannot be performed under quality assurance measures that fully meet the Code's requirements. However, you will need to specify in this section which quality assurance measures you feel are not yet in place (or are not relevant) and, where appropriate, state the remedial actions you intend taking to ensure future compliance and the timescale in which these will be addressed to meet the Code's requirements. Where quality assurance measures require development, appropriate interim project management arrangements should be outlined with the project milestones. These factors will be taken into account in appraising this proposal and managing the project if the proposal is successful.

The Principle Investigator is responsible for all work carried out in the project, including work supplied by sub-contractors. You should therefore assure yourself that the contribution they provide to the project is carried out in accordance with your stated compliance with the Code of Practice.

The proposal should also indicate, and if necessary clarify, how any legal aspects such as Intellectual Property, ethical considerations and management of local ethical requirements, and applicable regulations and health and safety issues will be taken into account. Applicants are reminded that, where appropriate, the need to obtain clearance for proposed work from local ethics committees is the responsibility of the contractor who will carry out the work.

For surveillance projects: applicants are asked to provide information regarding the performance characteristics of the methods to be used in the exercise, e.g. limit of

detection, accuracy, precision etc., and full details of the quality assurance measures used in their laboratories;

- Laboratories should confirm how they can or intend to comply with the specifications described and give details of the measures to be used. These requirements extend to both the laboratory as a whole and to the specific analytical determinations required in the surveillance exercise;

- Further information on these requirements are detailed in the most recent edition of the *Guidelines for Food Standards Agency Technical Surveys*. This is available from our website at: [www.food.gov.uk/science/surveillance/guidefsatechsurv/](http://www.food.gov.uk/science/surveillance/guidefsatechsurv/) Please contact Dr Roger Wood (Analytical Services, Survey and Research Policy Division, Tel: 01603 255231; E-mail: [roger.wood@foodstandards.gsi.gov.uk](mailto:roger.wood@foodstandards.gsi.gov.uk)) for further advice.

## **B7. Exploitation and Dissemination Plans**

This is an important part of the proposal. It is assessed by the Appraisal Panel under the criterion 'provisions for dissemination and intellectual property' and therefore it is important to pay sufficient attention to this part of the form.

It is always applicable because if the research findings are not to be communicated to somebody, it is not worth undertaking. You should think carefully about why the Agency is contracting the research (refer to the requirements) and decide how your proposal could deliver results and communicate them to the relevant and appropriate people and organisations in as cost-effective manner as possible. Provide as much detail as possible on what will be delivered.

The project Lead Contractor should describe, in concrete terms, plans for the dissemination and / or exploitation of the results for the consortium as a whole and for the individual participants. Details should include anticipated numbers of publications in refereed journals, trade journals or the press, presentations or demonstrations to the scientific community, trade organisations and internal reports or publications.

You may plan to make reports available on the internet. This may well be useful, but it does not remove the requirement for participants to think how best to target the research output to relevant groups.

NB – Permission to publish or to present findings from work supported by the Agency must be sought from the relevant Agency staff (i.e. the Project Officer) in advance. The financial support of the Agency must also be acknowledged.

The Exploitation and Dissemination Plans section should demonstrate the credibility of the partnership for exploitation of the results and explain the partnership's policy in respect of securing patents or granting licences for the technology (if applicable). It should deal with any possible agreements between the partners to extend their co-operation in the exploitation phase and with relevant agreements with companies, in particular users, external to the partnership.

## **Part C – Project Finances**

If the proposal is successful, information detailed here will form the Pricing Schedule section of the research contract.
---

## **FA1 - Proposal Cost Summary**

The Lead Contractor should complete form FA1 Proposal Cost Summary, which collates the costs for all participants and summarises them in a single table.

## **FA2 - Participant Cost Summary**

Each member of the project consortium (including the project Lead Contractor and any major sub-contractor) is required to complete a separate form FA2, Participant Cost Summary, which details each participant's individual costs, **including any VAT that is to be charged.**

**NB - Once a cost for the project has been agreed with the Agency and an agreement signed, no increase in cost for the specified work will be considered.**

### **Pay Costs**

You should include the costs of the personnel that will be working directly on the project. Your costing must provide a detailed breakdown showing for each person separately:

- the amount of staff time (e.g. number of days, months or years) by grade / salary bands for each year of the project, including staff to be recruited;
- the proposed annual salary (including Weighting Allowances, employers NI and Superannuation) and salary spine point (i.e. pay band) of each person during each year of the project.

**NB** - An explanation should be given where the staff effort increases or decreases during the life of the project. In appropriate cases, the Agency is willing to accept pay calculations on the basis of average pay costs. In this event you should indicate the average pay used for the grade(s) in question.

### **Inflation**

If the project is submitted through competition, a percentage to cover inflation can be built into the price, but please bear in mind that overall cost is a factor in the selection process.

If the project is not submitted through competition, costings must be submitted at current prices, and the Agency will add an allowance for inflation in line with the Treasury's forecast of GDP deflator.

### **Consumables**

These are essentially scientific laboratory supplies, such as glassware and chemicals, costing individually up to £2,000 in value and purchased from third parties, that will be used by the project. Please list separately all consumable items of significant value to be purchased specifically for the proposed project, including quantities where possible.

**NB – Overheads may no longer be applied to project consumables.**

**This is a significant change from the past, and applicants are strongly advised to take this into consideration when preparing their proposal costing.**

## Equipment

This relates to any item of capital equipment which is a fixed asset costing over £2,000, which is expected to yield continuous service beyond the year in which it is purchased. It includes items such as scientific and information technology equipment. The equipment must be essential to the project. Three quotations must be obtained for each item of equipment.

For new equipment the Agency will only pay that proportion of its working life (normally 5 years) to which it is used solely on the project. In other words, if a project is of 3 years duration, the Agency will pay 3/5 of the equipment cost spread evenly over the 3 years (i.e. 1/5 each year). Where equipment has a useful life of more than 5 years and / or is used for other purposes, you should make an appropriate reduction in the annual cost charged to the Agency.

Where new equipment is required please give details of the make, model, price and the year when each item is to be purchased and its purpose. Likewise, please indicate when equipment is to be leased from the manufacturer and give details of the costs of rental for each year.

A piece of equipment may need to be allocated full-time to a project. In such a case, the fact that an organisation owns a similar piece of equipment for use on other projects does not remove the need here for the purchase or hire of the equipment, although the usual rules on the amount or proportion to be paid will apply. It is however for the project participant to justify such a purchase.

If the requirement for the equipment is agreed as a part of the eligible project costs, you will be asked to provide the Agency with the following, as appropriate:

- the original written quotations obtained from three different suppliers.
- the original purchasing invoice or top copy of the rental agreement.

These documents will be returned immediately after a copy has been taken;

**NB** - In cases where it can be shown that the technical specification of equipment precludes all but a single supplier, a single written quotation will be acceptable, subject to the prior agreement of the Agency.

## Travel Expenses

Eligible travel costs are those that are essential for the conduct of the project and for its effective management and co-ordination between its participants.

General visits to conferences and similar functions in the UK or elsewhere and any foreign visits **will not** normally be regarded as an eligible cost. Exceptionally, however, such costs may be included where you can demonstrate to the Agency's satisfaction that the visits are **integral and essential** to the project.

Where travel costs are necessary, please provide details of their frequency, purpose, destination, the mileage and rate per mile (for road travel), air or rail fares, and number of persons travelling.

Each research Programme usually holds an annual workshop for the contractors engaged in its projects. The terms of the research contract expect the contractor to attend these workshops and, if necessary contribute or make a presentation of their work to them. Travel costs (and if necessary subsistence) for the project Lead Contractor and any other person who may need to accompany them for one journey

per year to the Agency or the designated location for a seminar or workshop should be included.

### **Overheads**

Overheads are defined as central and departmental costs that underpin the research establishments or activities, and other indirect costs that cannot readily be uniquely assigned to particular research projects. These may typically include the following:

- financial services (finance, accounting, tendering, marketing);
- personnel services;
- staff facilities (transport, health and safety, training, welfare, laundry);
- departmental services (administration, library, secretarial, printing, minor stores items, laboratory and workshop support);
- staff management, and cover for maternity and long-term sickness leave.

Please include details of the method used to calculate the overhead rate that is applied and list **separately** the items covered. The overhead rate should be expressed as a percentage of direct costs only i.e. payroll costs including weighting allowances, employer's NI contribution and superannuation.

**NB – Overheads may no longer be applied to project consumables.**

**This is a significant change from the past, and applicants are strongly advised to take this into consideration when preparing their proposal costing.**

### **Sub-contracts and Consultancy**

You should show that the involvement of all sub-contracts or any consultancy work is essential to the success of the project. Any costs under this heading must be identified separately. Please detail **separately** the component parts of any consultancy or sub-contract, including pay costs, consumables, equipment, travel expenses, overheads and other costs which have been included.

### **Sampling**

Potential contractors for surveillance work should liaise directly with the Food Standards Agency contact person specified in the requirement to ascertain the numbers and types of samples required.

### **Other Costs**

You should include here any costs related to the proposed work that do not readily fit under the headings provided e.g. laboratory / analytical services, laboratory animals, servicing of equipment, any non-equipment rental charges, equipment costing less than £2000, recruitment costs, computer software, stationery items, student registration fees and glasshouse heating. These must be listed individually and include a short explanation of the need and purpose of all the items you list.

### **VAT**

Businesses who are registered for VAT must include their registration number and the full amount of VAT to be charged to the Agency.

NB – Do ensure that all VAT that applies to the work proposed is included and clearly identified. If VAT is not identified and is subsequently not specified in the resulting contract agreement (in the Pricing Schedule) the Agency will not pay the additional cost.

Please note that the Agency is not able to provide opinions to potential contractors on the nature of the supply to the Agency nor on the status of any supplies made to the contractor by their own subcontractors.

It is the responsibility of the contractor or participant to confirm the nature of their supply to the Agency with their own Finance Department or their local VAT office if there is any doubt as to the nature of the supply being made.

If the Agency is concerned about the nature of the VAT being levied on the Agency, the Agency may require the applicant to obtain written confirmation from HM Customs.

### **Ineligible Costs**

The following are excluded from eligible costs:

- interest charges;
- hire purchase interest and any associated service charges;
- profit earned by a subsidiary or by an associated undertaking on work sub-contracted under the project; and
- recoverable VAT (an allowance may be negotiated with organisations with limited scope for recovery of input VAT).
- contingency allowances expressed as an arbitrary percentage overall addition to eligible costs.

### **PP1 - Participant Profile/Information**

Again, each participant or member of the project consortium (including the project Lead Contractor and any major sub-contractor) is required to complete a separate form PP1 Participant Profile/Information. This provides factual information about the participant's establishment and their named contact for the project. You should also give the names and details of any specific named members of staff who will be playing a significant part in the participant's contribution along with any recent and relevant publications.

## **Part D – Suggestions for Appraisal Panel Members**

In this section you are invited to suggest the names of up to three individuals who would be appropriate to assess the quality of proposals received in response to a specific requirement.

The Agency will appoint an Appraisal Panel to assess all of the proposals received for a specific requirement and make informed decisions on which is the proposal most suited to the Agency's specific research requirement needs.

The Agency will be grateful for any suggested names. However, please do note that the Agency will be under no obligation to use all or any of these individuals suggested.

**NB** – provision of this information is **NOT** obligatory. If names are not suggested, this will not count for or against the proposal when it is appraised.

## **Part E – Declaration**

The project proposal form should be signed by both the Project Leader's Head of Department and Administrative Authority. This confirms that they:

- agree to and authorise the offered commitments to the Agency in the proposal;
- have read and are content to comply with the Agency's standard Terms and Conditions; and
- are aware of the provisions of the Joint Code of Practice for Quality Assurance in Research and the project will be undertaken in compliance with the Code (or suitable interim measures have been described).

Any queries or requested deviations or variations from the Agency's standard terms and conditions should be recorded, in writing, as an annex to the proposal.

---

### **Before you submit your application –**

- Ask somebody who is not associated with preparing the bid to review your proposal against the published requirements using the selection criteria.
- Do they find the proposal easy to follow?
- Is adequate information provided to assess the proposal against the criteria?
- Consider their comments and decide whether the proposal needs amending before submitting it to the Agency by the stated deadline.
- And remember, quoted deadlines for receipt of proposals are not negotiable and cannot be extended. Proposals received after the deadline specified cannot be considered.

**Application Form for Research and Survey Contracts  
with the Food Standards Agency**

<b>Proposal Full Title</b>	<b>Please type here</b>
<b>Proposal Date</b>	02/07/2004
<b>Requirement Reference Number</b> (from requirements section)	<b>Please type here</b>
<b>Contractor Reference Number</b> (if known)	<b>Type here if known</b>

- Applicants should complete each part of this form as fully and as clearly as possible
- This form should be completed in conjunction with the 'Form Completion Guidelines'
- Note – bookmarks have been inserted in this form for compatibility with the FSA's new electronic research management system. Please do not submit proposals using a previous version of the form.
- To show bookmarks select the 'Bookmarks' option in Tools/Options.
- When submitting your application please ensure an electronic copy of this form is sent by email to [FSA\\_Remind@foodstandards.gsi.gov.uk](mailto:FSA_Remind@foodstandards.gsi.gov.uk)

<b>For Agency Use Only</b>	
Proposal Code	
Date Received	

**PROPOSAL OVERVIEW**

If the proposal is successful, information detailed in the Proposal Overview section will be posted on the research pages of the Agency website.

<b>Full Project Title</b>	Please type here
<b>Working Title</b>	Please type here

<b>Project Lead Contractor</b>			
<b>Name</b>	Please type here		
<b>Organisation</b>	Please type here		
<b>Department</b>	Please type here		
<b>Address</b>	Please type here		
<b>Telephone Number</b>	Please type here	<b>Fax Number</b>	Please type here
<b>Email</b>	Please type here		
<b>Website</b>	Please type here		

<b>Proposal Summary (max. 1000 characters)</b>			
Please type here			
<b>Duration (in months)</b>	Please type here	<b>Proposed Start Date</b>	Please type here

Summary of Total Estimated Costs (including VAT)						
Research Purchasers	Project Year 1	Project Year 2	Project Year 3	Project Year 4	Project Year 5	TOTAL (£)
Food Standards Agency	000	000	000	000	000	0
Other than the Agency	000	000	000	000	000	0
'In kind'	000	000	000	000	000	0
<b>TOTAL COST Inc-VAT (£)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

**PART A – RELEVANCE TO THE RESEARCH REQUIRED BY THE FOOD STANDARDS AGENCY**

Please type here

**PART B – DESCRIPTION OF SCIENTIFIC / TECHNOLOGICAL OBJECTIVES AND WORKPLAN**

If the proposal is successful, information detailed here will form the Scope of Work section of the research contract.

**B1. Objectives and Expected Achievements**

Objective No.	Objective Description
01	FOR INFO ONLY
02	
03	

**B2. Approaches and Research Plan**

**B3. Project Milestones**

Milestone No.	Target Date	Milestone Title
01/01		
01/02		
02/01		

**B4. Project Deliverables**

Deliverable Number	Target Date	Deliverable Title

FOR INFO ONLY

**B5. Role of Participants**

Please type here

**B6. Project Management (including Quality Assurance)**

Please type here

**B7. Exploitation and Dissemination Plans**

Please type here

**PART C – PROJECT FINANCES**

If the proposal is successful, information detailed here will form the Pricing Schedule section of the research contract.

The project Lead Contractor should complete form FA1 (Proposal Cost Summary), which collates the costs for all participants and summarises them in a single table.

Each member of the project consortium (including the project lead contractor and any major sub-contractors) is required to complete form FA2 (Participant Cost Summary), which details each participants' individual costs.

If the proposal is successful, the project lead contractor will be required to collate the financial details for all participants in the project consortium into a Pricing Schedule, which will form part of the research contract.

**FA1 - PROPOSAL COST SUMMARY**

Participant Name <sup>2</sup>	Project Year				
	Year 1 (£)	Year 2 (£)	Year 3 (£)	Year 4 (£)	Year 5 (£)
<b>Total Yearly Cost, ex-VAT (£)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>VAT (£)<sup>3</sup></b>					
<b>Total Yearly Cost, Incl-VAT (£)</b>					

<sup>2</sup> List the organisations involved in the project starting with the project lead contractor  
<sup>3</sup> Specify all VAT that may be charged by any participant

**FA2 - PARTICIPANT COST SUMMARY <sup>4</sup>**

Participant Name

Are you registered for VAT? (YES or NO)

If YES, what is your registration number?

	Project Year				
	Year 1 (£)	Year 2 (£)	Year 3 (£)	Year 4 (£)	Year 5 (£)
Pay Costs					
Consumables					
Equipment					
Travel Expenses					
Overheads <sup>5</sup>					
Sub-contracts and Consultancy Sampling <sup>6</sup>					
Other Costs					
<b>Total Yearly Cost, ex-VAT (£)</b>					
<b>VAT (£) <sup>7</sup></b>					
<b>Total Yearly Cost, Incl-VAT (£)</b>					

<sup>4</sup> One form should be completed for each proposed participant / organisation

<sup>5</sup> The method of calculation of the overhead rate and the items covered should be listed separately

<sup>6</sup> To be completed for surveys

<sup>7</sup> Specify all VAT that may be charged by any participant

**PP1 - PARTICIPANT PROFILE / INFORMATION<sup>8</sup>**

**Organisation Details**

Organisation		
Department		
Address		
Telephone Number	Fax Number	
Participant Role		
Short Name		

**Authorised Person**

Title (Mr, Mrs, Ms, Dr, Prof etc.)		
Family Name		
First Name		
Telephone Number	Fax Number	
Email		

**Project Staffing**

Please list the names and grades of staff who will work on the project together with details of their specialism and details of their 5 most recent relevant published papers.

--

<sup>8</sup> One form per participant / organisation

**PART D – SUGGESTIONS FOR PROJECT APPRAISERS**

In the table below, you are invited provide the names of **up to three** individuals who you feel would be appropriate candidates to appraise this proposal.

This information can help Agency staff to identify experts with appropriate expertise while avoiding difficult conflicts of interest.

Please note that:

- (i) provision of this information is **not** obligatory,
- (ii) whether or not you suggest potential appraisers will **not** count for or against your proposal, and
- (iii) the Agency is under no obligation to use all or any of these individuals named for the appraisal of this proposal or others submitted for the same proposal: the Agency's relevant Policy Division remains responsible for the final decision of appraisers used.

	Suggestion 1	Suggestion 2	Suggestion 3
<b>Name</b>			
<b>Organisation (Affiliation/ status)</b>			
<b>Contact address</b>			
<b>Contact telephone</b>			
<b>Contact email</b>			
<b>Area of expertise</b>			

**PART E – DECLARATION**

**PLEASE NOTE:** This application should be submitted by / through:

- (1) The Head of Department of the Project Leader; and
- (2) The person who will be responsible for administering any monies (invoicing the Agency and/or paying other participants).

Both should sign the following declaration:

I confirm that:

- (a) I have read this application and the Agency's standard contractual Terms and Conditions;
- (b) The Agency may show this application to third parties for the purposes of obtaining expert opinion on its scientific merits;
- (c) If successful, the work will be accommodated and administered in our Organisation in accordance with the Agency's contractual arrangements. The staff gradings and salaries quoted are correct and in accordance with the normal practice of this Organisation;
- (d) I am aware of the provisions of the Joint Code of Practice for Quality Assurance in Research, have read the guidance notes relating to Section B6 of this form and; (please tick one of the following)

The project will be completed in compliance with the measures laid out in the Joint Code of Practice for Research. Section B6 contains details of the Quality Assurance measures that will be in place;

OR

Appropriate Quality Assurance procedures to meet all of the requirements of the Code of Practice will not be fully in place at the proposed start date of this project. Section B6 of the application form contains the required details for interim arrangements.

- V. I understand that the Agency has the right to inspect our procedures and practices against the requirements of the Code of Practice, and that I may be asked to provide documentary evidence of our working practices or provide access and assistance to auditors appointed by the Funding Body.

If any part(s) of the standard agency Terms and Conditions is / are unclear or unacceptable, then this should be declared in writing as an Annex attached to this proposal.

**(1) Head of Department**

Signature

Date

Name

Organisation

**(2) Administrative Authority (the officer who will be responsible for administering any payments)**

Signature  Date

Name

Position

Organisation

Full postal address   
  
Postcode   
Telephone No.  Ext.   
Fax No.

Name of Project Leader

Full postal address of Project Leader   
  
Postcode   
Telephone No.  Ext.   
Fax No.

FOR INFO ONLY

\_\_\_\_\_