



Department  
for Environment  
Food & Rural Affairs



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## **Environmental Microbiology and Human Health – Call for Proposals: Full Bids**

**Closing date: 16:00 (4pm) Thursday 17 July 2014**

### **NOTES FOR INVITED APPLICANTS ONLY**

#### **Summary**

The NERC Environmental Microbiology and Human Health programme is a four year, £5.2m research programme. It is co-funded by the Defence Science and Technology Laboratory (Dstl) (part of the Ministry of Defence) and has additional “top-up” funds from the Food Standards Agency (FSA) for a relevant project and from the Department for Environment, Food and Rural Affairs (Defra) for a relevant project.

The programme has the vision of providing the scientific evidence to support fast and efficient identification of pathogenic/allergenic microorganisms and biological material in environmental media which can be used in appropriate tools and models for the protection of public health.

The programme is split into two parts; the first focusses on aquatic (freshwater and coastal) microbiology and the second on bioaerosols. In total NERC expects to fund four projects under this programme, two in each of the topics. Up to £4.6m is available for this call for research grants, with £2m to cover aquatic microbiology (two projects each of up to £1m at 80% FEC for three years) and £2.6m to cover bioaerosols (two projects each of up to £1.3m at 80% FEC for three years). The remaining programme funds will be used for Knowledge Exchange and impact activities, and programme coordination.

In addition, FSA may also contribute up to £250k additional funding for (an expected) one project in the aquatic (freshwater and coastal) microbiology part of the call that addresses outcomes of importance to the FSA (i.e. the total maximum funding that can be applied for as part of this project will be £1.25m at 80% FEC). Defra may also contribute up to £250k additional funding for (an expected) one project in the aquatic (freshwater and coastal) microbiology part of the call which addresses areas of interest to Defra (i.e. the total maximum funding that can be applied for as part of this project will be £1.25m at 80% FEC).

This call is for submissions of Full Bids under the Environmental Microbiology and Human Health programme. The call is only open to those applicants who were successful at the Outline Bid stage of the programme and have been specifically invited to submit a Full Bid to this call.

#### **Overview**

Following the completion of your Outline Bid for the Environmental Microbiology and Human Health programme, it has been agreed that your proposal is invited to be submitted as a Full Bid.

The NERC Environmental Microbiology and Human Health programme is a four year, £5.2m research programme. It is co-funded by the Defence Science and Technology Laboratory (Dstl) (part of the

Ministry of Defence) and has additional “top-up” funds of £250k from the Food Standards Agency (FSA) for a relevant project and £250k from the Department for Environment, Food and Rural Affairs (Defra) for a relevant project.

The programme has the vision of providing the scientific evidence to support fast and efficient identification of pathogenic/allergenic microorganisms and biological material in environmental media which can be used in appropriate tools and models for the protection of public health. This directly relates to the delivery of the NERC Environment, Pollution and Human Health theme from the 2007-2012 Next Generation Science for Planet Earth NERC strategy, as well as the “Resilience to Natural Hazards” and “Managing Environmental Change” challenges identified in the Business of the Environment, the new NERC strategy published in November 2013.

Please see the original Announcement of Opportunity document for information on the scientific scope of the programme:

<http://www.nerc.ac.uk/research/funded/programmes/emhh/news/ao-outline/>

Up to £4.6m is available for this call and it is anticipated that four projects will be funded under this programme, two in each of the topics. Up to £2m is available to cover aquatic microbiology (two projects each of up to £1m at 80% FEC for three years) and £2.6m to cover bioaerosols (two projects each of up to £1.3m at 80% FEC for three years). The remaining programme funds will be used for Knowledge Exchange and impact activities, and programme coordination.

In addition, FSA may also contribute up to £250k additional funding for (an expected) one project in the aquatic (freshwater and coastal) microbiology part of the call that addresses outcomes of importance to the FSA (i.e. the total maximum funding that can be applied for as part of this project will be £1.25m at 80% FEC for three years). Defra may also contribute up to £250k additional funding for (an expected) one project in the aquatic (freshwater and coastal) microbiology part of the call which addresses areas of interest to Defra (i.e. the total maximum funding that can be applied for as part of this project will be £1.25m at 80% FEC for three years). Where there may be some overlap in FSA and Defra interests, applicants can only apply for a maximum of £1.25m, indicating which “top-up” they are applying for in their application. Elements of the proposed research that address FSA’s and Defra’s outcomes and the costs associated with these should be clearly distinguished in the Full Bids and the Justification of Resources.

**Invited applicants should note that these upper budget limits are a revision from the previous Announcement of Opportunity so that there is now an additional £100k available for each grant.**

Under the bioaerosols topic of the call, one of the grants supported will cover research specifically in the area of airborne bacteria and/or viruses that may impact on human health, and the other grant is expected to fund research on other outdoor health-impacting bioaerosols, such as pollen, fungi, spores, phytoplankton and plant and insect fragments. Applicants for the airborne bacteria and/or viruses grant will be required to second an individual into Dstl for a period of time to understand defence related work in this area. This must be factored in to the Full Bid (specifics to be confirmed and funds to be provided post award; the seconded individual would need to undergo security clearance and be a UK national and would be expected to be have the majority of their time on this grant (e.g. a PDRA)).

NERC, Dstl, FSA and Defra reserve the right to consider rejecting applications if they do not fall within the budget limit specified. Projects are expected to have a duration of no more than three years and to start in April 2015.

## Content of Full Bid Applications

NERC, Dstl, FSA and Defra expect that proposals will evolve between the Outline Bid and the Full Bid (including personnel), but major science elements of the project proposed are expected to remain broadly the same, although taking into account any feedback from the Outline Bid stage. Applicants should agree any significant proposed changes with NERC prior to submitting their Full Proposals. The total amount of funding requested must remain within the limits set out in this guidance document.

The primary assessment criteria for the Full Bids will be Research Excellence and Fit to Scheme.

## How to Apply

The following notes provide a summary of the procedures for submitting a proposal to the Environmental Microbiology and Human Health programme call for Full Bids. If there are any specific queries regarding an application, applicants can consult the Environmental Microbiology and Human Health Programme Officer, whose contact details are at the end of this document.

NERC is the lead funder for this call and as such, will handle and award proposals submitted. For information about the regulations governing research grants awarded by NERC, please refer to the [NERC Research Grants Handbook](#). As well as describing general application procedures, this also outlines the funding and facilities available to grant-holders, and details the responsibilities of NERC, Investigators and Research Organisations. Further information is also available at: <http://www.nerc.ac.uk/funding/application/howtoapply/>.

## Application Procedure

Applications must be submitted using the Research Councils Joint Electronic submission system (Je-S). Please select the Scheme – 'NERC/Standard Proposal/Directed/Environmental Biology & Human Health JUL14'. To use this system, the applicant's Research Organisation must be registered as a Je-S user. Full details are available on the Je-S website (<https://je-s.rcuk.ac.uk/JeS2WebLoginSite/Login.aspx>). Further information can also be obtained by contacting the Je-S Helpdesk by email [JeSHelp@rcuk.ac.uk](mailto:JeSHelp@rcuk.ac.uk) or by telephone on 01793 444164 (Monday to Friday 8:30 – 17:00).

Applicants must ensure that they submit by **16:00 (4pm) 17 July 2014**. Applicants should leave enough time for their application to pass through their organisation's Je-S submission route before this date. Any application that is received after the closing date, is incomplete, or does not meet the eligibility criteria will be returned to the applicant and will not be considered.

All attachments submitted through the Je-S system must be completed in single-spaced typescript of minimum font size 11 point, Arial font, with margins of at least 2 cm.

For Environmental Microbiology and Human Health Full Bid applications the following would be expected to be submitted to NERC via the Je-S system:

Attachments including:

- Case for Support incorporating the Previous Track Record (up to 2 sides A4), the Description of Proposed Research (up to 8 sides A4) [total document length = 10 sides A4].
- The Outline Data Management Plan (ODMP, up to 1 side A4).
- Business Case for items of equipment above the OJEU threshold (up to 2 sides A4).
- Justification of Resources (up to 2 sides A4).
- Pathways to Impact (up to 2 sides A4).
- CVs for all named research staff (including Researcher Co-Investigators) and Visiting Researchers (up to 2 sides A4 for each CV).
- CVs for all Principal and Co-Investigators named in the proposal (up to 2 sides A4 for each CV).
- Letters of support from any named Project Partners the date of these must be within six months of the submission date) (up to 2 sides A4 each).
- Price quotations/documentary evidenced of estimated cost for equipment costing more than £25,000.
- Technical Assessments – information provided by NERC services and facilities staff (where appropriate).
- Application forms for access to NERC Services and Facilities, if applicable - for example Aircraft (ARSF and FAAM), Ship-time/Marine equipment (SME) and for High Performance Computing (HPC) when use of ARCHER exceeds 100 MAU.

Applicants for NERC grants may also apply to NERC for access to any of the NERC services and facilities. Contact with the facility should be made prior to submission to ensure that the work can be done, both from a scientific aspect and to confirm that the facility has the capacity to fulfil your request during the required time period. The facility staff will be able to provide details of the costs and where applicable, this confirmation should be added to your application as the attachment type 'Technical Assessment'. Further information on NERC services and facilities can be found at: <http://www.nerc.ac.uk/research/sites/facilities/>.

All applications must include a 2 page 'Pathways to Impact' Plan. Due to recent changes in NERC relating to Pathways to Impact, applicants are strongly encouraged to read the guidance at <http://www.nerc.ac.uk/funding/application/howtoapply/pathwaystoimpact/>. In summary, in the Pathways to Impact, applicants should consider what will be done during and after the project to increase the likelihood of the research reaching the identified beneficiaries and maximise the likelihood of identified benefits being achieved. A programme-wide Knowledge Exchange plan will be developed, and applicants are encouraged to present ideas for programme-wide Knowledge Exchange activities as well as project specific ones. Funding will be made available for the programme-wide Knowledge Exchange activities at the post-award stage, but funds required to support project-specific activities should be included in the grant applications and fully justified in the Justification of Resources Statement. Pathways to Impact are no longer scored by reviewers and are no longer used as a secondary criterion for ranking proposals. The Environmental Microbiology and Human Health Full Bid moderating panel will discuss any reviewer comments on Pathways to Impact plans and any proposals within the funding frame will **not** be allowed to start unless unacceptable Pathways to Impact plans are enhanced to an acceptable level within 2 months of notification of the panel outcome.

A mandatory, single page, Outline Data Management Plan (ODMP) is required for all proposals. The ODMP should identify data sets likely to be made available to NERC Environmental Data Centres for archiving and reuse at the end of the grant (guidance available at <http://www.nerc.ac.uk/research/sites/data/dmp/>). The ODMP for successful proposals will be made available to the NERC Environmental Data Centres (see <http://www.nerc.ac.uk/research/sites/data/dmp/>) and where appropriate, used by them to draft, in collaboration with the Principal Investigator, a full Data Management Plan (DMP). This full DMP should be mutually agreed between the Data Centre and the Principal Investigator within three months of the start date of the grant.

For further details please refer to the [NERC Research Grants Handbook](#) and the guidelines for NERC Standard Grant applications.

### **Eligibility**

Please check eligibility on the NERC pages for investigators and Research Organisations: <http://www.nerc.ac.uk/funding/application/eligibility/>. Investigators may be named on a maximum of two different proposals but only one as the lead Principal Investigator. It is the responsibility of the lead PI to ensure that your application does not include ineligible Co-Is and Researcher Co-Is, or who are named on more than two applications in the call. Making post submission changes to remove or edit applicants require the return of applications to the lead Research Organisation which can cause significant delays to the processing of all the applications in the call. NERC, Dstl, FSA and Defra reserve the right to reject applications if eligibility criteria are not met.

Please note that **only** those who submitted an Outline Bid and have subsequently been invited to submit a Full Bid can submit to the Full Bid stage, and only one application is expected per Outline Bid team. NERC encourage you to maintain the same project title and the PI and ask that if you are making any changes to this that you inform the Programme Officer. The funders would also appreciate it if you could let the Programme Officer know if you do not intend to submit to the Full Bid stage. There is an expectation that teams may change during the preparation of the Full Bid and if there is any doubt then applicants should contact the Programme Officer.

### **Full Economic Costs (FEC)**

NERC research grants are awarded on the basis of a proportion of the full economic cost (FEC), calculated in accordance with the TRAC (Transparent Approach to Costing) methodology (Universities and other Higher Education Institutes), or by an equivalent methodology in the case of Research Council Institutes or other academic analogues. The proportion of FEC awarded is currently 80%. FEC will be applicable to all successful grants awarded to UK institutes under this call.

### **Costing an Environmental Microbiology and Human Health Full Bid Proposal**

It is very important that all costs required to undertake the research be included in the Environmental Microbiology and Human Health Full Bid. Note that because NERC awards are 'cash limited', any costs omitted at the proposal stage cannot be recovered subsequently. The

Justification of Resources should include all Directly Incurred Costs, Investigator effort, use of pool staff resources and any access to shared facilities and equipment being sought. No justification for Directly Allocated Estates and Indirect costs is required. It should be noted that if resources are not fully justified, they will be subject to reduction by NERC on the recommendation of the Environmental Microbiology and Human Health moderating panel.

### **Open Access Costs**

NERC will no longer provide funding in grants for any publication costs associated with peer-reviewed journal articles and conference papers. Publication costs associated with research outputs other than journal articles and conference papers, such as books, monographs, critical editions, catalogues etc. may, however, continue to be included in grants as a Directly Incurred Other Cost. Any request for such costs will need to be fully justified in the justification of resources.

### **After Submitting your Application**

When NERC receive your application through Je-S, you cannot make any amendments or additions. Therefore please make sure that all letters of support are secured well in advance of the closing date.

NERC will contact you if there is a problem with your application. Any delay in your proposal may jeopardise the quantity of reviews received on your application, which may affect the final recommendation of the Environmental Microbiology and Human Health moderating panel.

When NERC have completed initial checks, it will be sent to peer review. Note that applicants can select up to four nominated reviewers on the Je-S applicant form. Use of these nominated reviewers will be at NERC's discretion.

### **Resubmissions Policy**

The policy on resubmission of proposals will be the same as for directed grant rounds, see: [NERC Research Grants Handbook](#).

### **Assessment Process**

NERC publishes full guidance on the proposal submission and assessment processes: <http://www.nerc.ac.uk/funding/application/assessment/>.

Proposals will be assessed against the following criteria:

- Research Excellence
- Fit to Scheme

Details on the funding categories can be found on the NERC website at: <http://www.nerc.ac.uk/funding/application/assessment/assesscriteria/>.

Applications will be peer reviewed by between three (minimum) and five (maximum) independent reviewers selected by NERC, and final funding recommendations will be made by the Environmental Microbiology and Human Health moderating panel. Applicants have the

opportunity to suggest up to four nominated reviewers. There will be an opportunity for PIs to respond in writing to the reviewers' comments.

The Environmental Microbiology and Human Health moderating panel will comprise a number of independent experts (chosen to reflect the disciplinary mix in applications) who will examine the applications, the reviewers' comments and the applicant response. The moderating panel will decide, using this information and their own judgement, a ranking order of applications based on priority for funding. This ranked order will be provided to the Programme Executive Board (PEB)<sup>1</sup> as a recommendation for funding.

As mentioned above, Pathways to Impact plans are no longer scored and will not be used as part of the ranking at the moderating panel. Reviewers will provide comments on Pathways to Impact and the panel will discuss these comments and deem them acceptable/unacceptable. An acceptable Pathways to Impact plan is a condition of funding. Grants will not be allowed to start unless unacceptable Pathways to Impact plans are enhanced to an acceptable level within 2 months of notification of the panel outcome. See <http://www.nerc.ac.uk/funding/application/howtoapply/pathwaystoimpact/> for more information.

Feedback will be available to applicants upon request once the funding decision process has been completed.

## Timeline

Call open on JeS:	May 2014
Proposal Deadline:	16:00 (4pm) 17 July 2014
Moderating Panel:	November 2014
Outcome Published:	Expected December 2014
Grants begin:	April 2015
Kick off workshop:	April 2015
Grants end:	April 2018
End of programme activity:	April 2018 – March 2019

There will be an opportunity for you to respond to reviewers comment and this is expected to take place around the end of August to the start of October 2014 – **please ensure that your team are ready to respond during this time period as you will have a limited period to submit your response.**

## Programme Management

Following the award of grants, the projects' Lead PIs will form a management group working with NERC on the day-to-day management of the programme (including reporting, communications), and there will be additional funding (for the PEB to award) to deliver programme-wide activities for both better programme integration and coordination (such as synthesis activities and science meetings) but also carry out Knowledge Exchange, impact and innovation activities. Further information will be available post award but there will be a meeting as soon as grants begin to get this activity going. Note that this is programme level KE

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<sup>1</sup> The Programme Executive Board is the executive decision making body for the programme and includes representatives of the funders.

and not KE within individual projects, and therefore, Pathways to Impacts plans are still required.

### **Reporting Requirements**

As with all NERC grant holders, there will be a requirement to report through a Research Council's research outcome collection system on an annual basis. Reporting at the programme level will be required biannually through the programme level KE and Coordination (process to be determined but see above for more information).

### **Studentships**

As grants are to be only three years in length, no associated studentships are expected.

### **CONTACT DETAILS**

Application process and programme enquiries:

Sarah Keynes – [microbiology@nerc.ac.uk](mailto:microbiology@nerc.ac.uk)

01793 411541

FSA:

David Alexander – [David.Alexander@foodstandards.gsi.gov.uk](mailto:David.Alexander@foodstandards.gsi.gov.uk)

Defra:

Victor Aguilera – [victor.aguilera@defra.gsi.gov.uk](mailto:victor.aguilera@defra.gsi.gov.uk)

Dstl:

Adrian Baker – [EMHH@dstl.gov.uk](mailto:EMHH@dstl.gov.uk)