



Food & nutrition research for health in the developing world: Bioavailability and nutrient content

Call status

Open

Call launch date

2 July 2018

Application deadline

11 Sept 2018, 16:00 BST

Summary

BBSRC is pleased to announce a total of £6.9 million to support a number of interdisciplinary, collaborative research proposals to address the challenges spanning the agriculture-nutrition-health interfaces relating to food and nutrition research for health in the developing world.

The purpose of this call is to advance interdisciplinary research across the agriculture – food – nutrition – health pathway to sustainably deliver more nutritious foods to improve physical and cognitive health across the lifecourse in developing countries. It aims to enhance the nutritional content and bioavailability of nutrients in a diverse range of culturally appropriate foods; and determine the impact on human health outcomes.

Proposals must be led by UK researchers normally eligible for BBSRC funding, and partnerships with eligible Co-Investigators based in any of the DAC countries listed in the Downloads section are strongly recommended.

The call is funded from the UK government's Global Challenges Research Fund (GCRF). As well as being scientifically excellent, research supported under it must meet the criteria for classification of expenditure as Official Development Assistance (ODA).

Funds can be requested for up to 2 years and projects must start on 1 April 2019.

Webinar

To provide an opportunity to learn more about this call and ask questions, BBSRC will be hosting a webinar on the 11th July. **This webinar is for UK PI's who will lead a proposal, and their supporting research office staff.**

The aim of this webinar is to assist lead applicants in addressing BBSRC's expectations of this call, particularly giving further clarity on the scope of the call.

The webinar will be held via Adobe Connect, please email FNH@bbsrc.ac.uk, stating your name and institution, to register your interest and obtain joining instructions.

Background

The Global Challenges Research Fund is a £1.5 billion fund announced by the UK Government in 2015 to support cutting-edge research that addresses the challenges faced by developing countries. Alongside the other GCRF delivery partners we are creating complementary programmes that:

- promote challenge-led disciplinary and interdisciplinary research, including the participation of researchers who may not previously have considered the applicability of their work to development issues
- strengthen capacity for research, innovation and knowledge exchange in the UK and developing countries through partnership with excellent UK research and researchers
- provide an agile response to emergencies where there is an urgent research need.

GCRF is part of the government's commitment to allocate 0.7% of the UK's Gross National Income to Official Development Assistance for promoting the welfare and economic development of developing countries. As well as being scientifically excellent, research supported by GCRF must meet the criteria for classification of expenditure as ODA. Further information is available from the [UKRI website](#).

Purpose and aims

Access to a sustainable and nutritious diet is vital for good health and longevity. Poor diet is the number one risk factor in the global burden of disease and results in economic deficit (ref 1). Despite some significant improvements to global nutrition over recent decades, the burden of malnutrition remains high and continues to be a worldwide problem, with at least one in three people experiencing malnutrition in some form (ref 2).

Recent reports indicate that both the World Health Assembly global nutrition targets and United Nations Sustainable Development Goals will not be achieved unless there is a step change in our response to malnutrition in all its forms (ref 3). It is apparent that an accelerated pace of research is required to improve the nutritional quality of food; provide robust scientific evidence of health benefits in humans; and inform effective intervention and policy.

Each developing country will have its own challenges in relation to malnutrition and finding effective solutions will involve starting with the population of concern and the diet quality gap they face, examining what food systems they are served by and then working back into the food system to find the most effective, aligned solutions. No single intervention will reduce malnutrition and the associated poor health outcomes, and thus, it requires coordinated efforts across the food system.

This call seeks to support interdisciplinary collaborative research spanning the agriculture-nutrition-health interfaces that combines the expertise of scientists in the UK with the knowledge of research partners in the participating country. The inclusion of resident researchers as Co-Is is strongly recommended to enable better project co-design and form truly integrated partnerships with clear and complementary roles, and equitable divisions of responsibilities and resources, as well as fostering applicability of results where relevant. The engagement of potential stakeholders and users, such as farmers, policymakers and health agencies in project design and delivery is also encouraged to enable the proposed research to have sustainable impact by delivering nutritional strategies appropriate for potential users of its outcomes, and strengthening capacity for the longer term.

The purpose of this programme is to inform the development of new strategies to address the challenges in food, nutrition and health by supporting collaborative research that brings together the complementary capabilities of scientists in the UK and partners in developing countries. It aims to:

- generate health benefits by investing in interdisciplinary research across the agriculture – food – nutrition – health pathway to sustainably and cost-effectively deliver more nutritious foods to improve physical and cognitive health across the lifecourse in developing countries
- improve the nutritional content and bioavailability of nutrients in a diverse range of foods to meet nutritional requirements and address malnutrition/ key nutrient deficiencies in the developing world

Scope

In July 2017, BBSRC, in collaboration with the Department for International Development (DFID), ESRC, MRC and the Bill & Melinda Gates Foundation (BMGF), led a small delegation of UK academics to participate in a GCRF nutrition networking event that linked in with the [Agriculture, Nutrition and Health Academy](#) Conference in Kathmandu, Nepal.

The purpose of the event was to bring together UK and developing country researchers/ stakeholders to advance understanding of the complex relationships between agriculture, food, nutrition and health, identify research challenges, and associated scientific and partnering opportunities, informed by resident researchers with understanding of the systems in the developing world. This programme is taking forward some of the research opportunities identified from that event.

Agriculture and food are intrinsically linked to nutrition and health and this call provides an opportunity for a more collaborative approach across research disciplines to better understand nutrition-related health challenges in developing countries; to support the development of appropriate nutritious and safe food sources to address them; to foster healthy food choice and consumption behaviours; to determine their impact on human health outcomes and provide evidence to inform future intervention and policy.

The scope of this call includes collaborative research on a diverse range of foods such as staple crops, fruits and vegetables and animal-sourced foods (e.g. eggs, milk, fish, insects) for human consumption and health benefits. It also includes, for example, crops grown for farmed animal feeds to improve the nutritional content of animal-sourced foods.

Proposals must focus on issues primarily relevant to developing countries and be designed to improve the health of the populations it intends to serve. There are multiple areas of opportunity and proposals should aim to address one or more of the following illustrative questions:

- What constitutes a healthy diet and how does it vary at different stages across the lifecourse, across different groups, within populations and in different regions of the world?
- What culturally appropriate foods should be produced and consumed to improve health in developing countries?
- How do we diversify the food produced to provide nutritious food that people want to eat, and what impact does this have on health outcomes?
- How can we modify/manage food/food systems so that they sustainably provide nutritious food to improve human health?

- How do changing farming practices affect nutrient content in crops and farmed animals and their implications for human nutrition and health?
- What factors influence the nutrient content and bioavailability of macro- and micro-nutrients in food, and their uptake/absorption to impact on human health?
- How can we improve methods, standards or technologies to measure dietary intake, energy expenditure, nutritional status and health outcomes, particularly for use in developing countries settings?
- How can we demonstrate a clear link between biofortification/fortification and health benefits?

Approaches to tackle these questions could include the following areas:

- physical and chemical interactions in foods and the underlying biological mechanisms of bioavailability, nutrient uptake and metabolism, e.g. diet, nutrition and health, general health status, systemic infection, inflammation; gut health and function, gut microbiome, early microbial colonisation and pathogenic organisms in the gut
- lifestyle, food environments, and food related behaviours
- dietary diversity, alternative food sources
- food fortification and reformulation
- biofortification, genomic selection in crops/farmed animals, phenotyping
- informative indicators, e.g. biomarkers, nutrigenomics, nutri-epigenetics
- new rapid and accurate diagnostics; high throughput and affordable smart technologies for analysis to measure nutrient stability, dietary intake and nutritional status, particularly suitable for use in developing countries settings
- an appreciation of individual, population, and ethnic/cultural variations in dietary nutrient requirements
- food systems: urban/rural, seasonality, postharvest biology, nutrient stability, storage technology
- altering animal feed to improve farmed animal gut microbiome and health directed towards enhancing human nutrition and health
- nutrition/food/nutrient intervention efficacy and safety, e.g. mechanisms of delivery, preventing adverse effects

Proposed research must be predominantly within BBSRC's remit, and include a substantial element of investigative bioscience. However, potential application of the research must also take account of its broader social and cultural (particularly gender), economic and environmental contexts, and some aspects of proposals under this call may appropriately span interfaces with the remits of other UKRI councils.

The following research areas are outside the scope of the call:

- Primary food production relating to increasing productivity – both crop and animal (precision agriculture, pest/disease resistance)
- Nutrition solely directed at improving animal health
- Food safety - contamination of food by pathogens, toxins or other harmful substances at any stage of the food-chain
- Research directed at human pathology and disease, e.g. cancer, diabetes. Research solely focussed on obesity is also excluded, but is included when considering it in the context of the 'double burden' of malnutrition
- Epidemiological research and the establishment of new cohorts

Eligibility

UK applicants

Applications must be led by an eligible Principal Investigator (PI) in the UK. Standard BBSRC eligibility conditions apply to UK applicants for this call. See section 3 of the [BBSRC Grants Guide](#) and the UKRI list of eligible organisations [list of eligible organisations](#) (for further details).

The Principal Investigator and her or his research organisation:

- i. will be identified as the PI on the Je-S form and will be responsible for submitting a single Je-S proposal on behalf of all participating organisations;
- ii. will be the recipient of the award, and will manage and be accountable for the finances of the partnership in accordance with the terms and conditions of the award, including disbursing funds to the other eligible participating organisations and fulfilling BBSRC's financial and scientific reporting requirements.

Overseas Co-Investigators

Applications may additionally include (for this call only) eligible Co-Investigators (Co-Is) based in any of the DAC countries listed in the Downloads section.

Overseas Co-Is should hold a position of lecturer level or equivalent status in a university or other recognised higher education institution or other research institution, or other 'not-for-profit' organisation with a credible and relevant research capacity, based in an eligible DAC country (see list of eligible countries in Downloads section). This includes researchers at both national institutions of eligible DAC countries and establishments of international organisations located in those countries. It does not include establishments of international organisations which are located elsewhere.

All applicants named on the Je-S form must be registered as users of the Joint Electronic Submission (Je-S) system well in advance of submitting the application. Please note that the Je-S registration process for overseas Co-Investigators could take up to 3 weeks and thus, are advised to register as early as possible.

Researcher Co-Investigators

A Researcher Co-Investigator describes a postdoctoral research assistant (PDRA) or equivalent (being ineligible to be either Principal or Co-Investigator in his or her own right) who has made a substantial intellectual contribution to the formulation and development of the proposal, and would be engaged in the ensuing research. This status can be used by a PDRA as evidence of involvement in acquiring research funding.

Researcher Co-Investigators based at the institution(s) of either the UK Principal or Co-Investigator(s) may be included. Researcher Co-Investigators based at the institutions of overseas Co-Investigators (described above) are **not** permitted. For detailed guidance, please see Section 3 of the [BBSRC Grants Guide](#).

Funding for any type of studentship, whether in the UK or overseas, may not be requested on applications to this call.

Project Partners and collaborators

As detailed in Section 2 of the [BBSRC Grants Guide](#), researchers or others not eligible to be Co-Is may be included in proposals as Project Partners or collaborators. Neither Project Partners nor other collaborators would receive funding from BBSRC.

Project Partners or other collaborators may be based in universities or other institutions, or independent researchers. They may also be potential users of research outcomes, including commercial organisations. Collaboration with industry is encouraged where relevant, but must not compromise the ODA compliance of the proposed research by inappropriately restricting use of its outcomes by potential beneficiaries (see section below on 'Data sharing, open access and intellectual property').

Sub-contracting

Where necessary - for example, because of the lack of the required expertise in eligible institutions - aspects of the proposed research may be sub-contracted to an otherwise ineligible organisation.

Funds for sub-contracting must be disseminated via the lead UK Research Organisation, and will be funded by BBSRC at 80% of the full economic cost (fEC), in accordance with the information in Section 2 of the [BBSRC Grants Guide](#).

Remit

The proposed research must be predominantly within BBSRC's remit, include a substantial element of investigative bioscience, and fit within the scope of the call.

If you are unsure whether your proposed research would be appropriate for this call, please send an outline of what you plan to do to FNH@bbsrc.ac.uk and BBSRC staff will be able to advise you.

BBSRC Schemes

The following BBSRC schemes do **not** apply to this call: New Investigator; Industrial Partnership Awards; and Industrial LINK.

ODA Compliance

All research funded through this call will form part of the UK's Official Development Assistance, as defined by the Development Assistance Committee of the Organisation for Economic Co-operation and Development (OECD). Guidance on the definition and its interpretation is provided in the OECD '[What is ODA?](#)' fact sheet and the [UKRI website](#).

Applicants must consider the ODA relevance of their planned research throughout their proposal. In particular, how the project will work to alleviate poverty and promote welfare, and the strength of the developing country partnerships. Applicants must ensure that the title and abstract of their proposal reflects the ODA challenge that the research aims to address. In addition to addressing ODA relevance throughout their proposal, applicants must complete an ODA compliance questionnaire (see Downloads section). This is a standalone document which should make clear the ODA relevance of the proposed project without reference to other documents in the proposal (i.e. Case for Support, Pathways to Impact). Proposals which are not considered to be ODA compliant will be rejected without peer review.

To ensure ODA compliance, you should consider the following aspects when preparing your application:

- Your proposed research should investigate a specific problem or seek a specific outcome which will impact on the economic development and welfare of your partner country[ies] in the immediate or longer-term
- The benefit and relevance of the proposed research to your partner country[ies] should be clear
- You will need to consider the pathway to achieving impact (during and after the lifetime of the research grant).

It is now mandatory that the title and abstract of all GCRF proposals reflect the ODA challenge that the research aims to address.

Proposals can:

- Focus on a development topic or address an unmet capacity need in the partner country
- The primary benefit of the proposed research must be to the developing country(ies), although secondary benefits to the UK are acceptable and should be articulated where relevant.

BBSRC does not expect research funded through this call to achieve demonstrable impact in the target country during the lifetime of the grant. However, applications will need to demonstrate the potential contribution of the proposed research to enhance the economic development and welfare of their chosen country(ies).

Project scale and duration

Up to £6.9 million is available, subject to the quality of proposals received. Total requested costs should not exceed a maximum of £2 million (at 100% of their full economic cost; see Eligible costs section in the Guidance for Applicants).

Information about the funding that may be requested is provided in the Guidance for Applicants, along with instructions on how costs should be entered in the Joint Electronic Submission (Je-S) system and, for DAC listed countries the additional Overseas Resource Requests spreadsheet. It is essential that applicants refer to the Guidance for Applicants to ensure that the correct documentation and information is submitted.

Funds can be requested for up to two years. Projects are expected to start on 1 April 2019 and to by 31 March 2021.

Eligible costs

BBSRC strongly recommends integrated partnerships between researchers in the UK and DAC listed countries, with clear and complementary roles, and equitable divisions of responsibilities and resources between researchers in the DAC listed country and the UK. BBSRC will fund the UK component(s) of any successful collaboration. BBSRC will also fund overseas Co-Investigators, and associated costs, if eligible (see guidance below).

A single Je-S application (proforma) should be submitted by the research organisation of the UK PI on behalf of all participating organisations. **Please take particular care to include sufficient costs to support an international project such as travel and subsistence in addition to salary (investigators and PDRAs) and consumables**

Eligible UK costs

UK components should follow the guidelines outlined in Section 5 of the [BBSRC Grants Guide](#) and be costed on the basis of full economic costs (fEC). If the grant is awarded, BBSRC will provide funding on the basis of 80% of fEC.

Please ensure you specify clearly in the description field if you are requesting the use of any BBSRC facilities. Any costs requested for the use of facilities at the Earlham Institute should be listed under The Genome Analysis Centre (TGAC) on the Je-S submission.

Eligible overseas costs

Costs associated with overseas Co-Investigators should be included in the Je-S submission as Exceptions. For eligible Co-Investigators' institutions in DAC listed countries, BBSRC will pay in full the Directly Incurred costs of the research, together with a contribution towards the associated Indirect and Estates costs calculated as 20% of the Directly Incurred costs.

Details of funding and a breakdown of the costings for overseas applicants should be recorded in the 'Overseas resource requests' spreadsheet available in the Downloads section. Guidance on how to complete this is provided in the first tab on the spreadsheet.

The following costs may be requested for overseas Co-Investigators:

- Costs for overseas Co-Investigators and any locally employed staff, i.e. percentage contribution of actual salary representing the proportion of each person's time to be spent working on the grant. These costs must be entered as Exceptions under the Other Directly Incurred costs on Je-S at 100% fEC
- Travel and subsistence for overseas Co-Investigators. These costs must be entered as Exceptions under the Travel and Subsistence costs on Je-S at 100% fEC
- Costs charged by the overseas organisation and associated with the research, for example consumables and small items of equipment costing less than £10,000, field work, etc. These costs must be entered as Exceptions under the Other Directly Incurred costs on Je-S at 100% fEC
- A contribution towards Indirect and Estates costs at the overseas organisation. This should be calculated as 20% of the overseas research organisation's Directly Incurred costs. This total should be entered as an Exception under the Other Directly Incurred costs on Je-S

Councils expect Directly Incurred staff to use timesheets so that their actual time is recorded against a project to form the basis of the costs charged. For more details of the audit requirements for Directly Incurred costs please see Section 5.6 of the Grants Guide.

The following will **not** be funded under this call in either the UK or DAC partner countries:

- any types of studentships;
- items of equipment costing more than £10,000 or other capital expenditure.

Due Diligence

In accordance with the UKRI Terms and Conditions of Research Grants (see 'External links'), UK PIs will be responsible for performing due diligence in order to provide assurance to BBSRC's accounting officer that funds have been disbursed in an appropriate manner. No funding will be released by BBSRC until it is satisfied that due diligence will be performed to an acceptable standard. This information must be provided to BBSRC on the 'Assurance Questionnaire' which is available in the Downloads section. Submission of this form is mandatory and applications which do not include a completed Assurance Questionnaire will be rejected. The form will be used by the UKRI Funding Assurance team to ensure that adequate due diligence processes are in place. For applications which are recommended for funding, UKRI will complete due diligence checks on all overseas partners before the grants are authorised. The lead UK RO will be expected to help with this process. Please see [Due Diligence guidance for UK Research Organisations](#)

How to apply

If you have any queries about eligibility please contact FNH@bbsrc.ac.uk

Apply using the Je-S website by 16:00 on 11th Sept 2018. To ensure a proposal is submitted on time we suggest that it should be sent to your institution's Je-S submitter pool approximately a week before this deadline. Please note that we are unable to accept late submissions.

In order to see the BBRSC Fund call in Je-S, select the 'Documents' section on the right hand side and then under the 'Functions' section select 'New Document' and follow the options from the drop-down menus:

Log in the Joint Electronic System (Je-S)

- Select Council: BBSRC
- Select Document Type: Standard Proposal
- Select Scheme: Standard
- Select Call: GCRF Food & Nutrition research for health in the developing world: Bioavailability and Nutrient content
- Select 'Create Document'

Applications must be submitted by UK Research Organisations that are eligible to receive funding from BBSRC. Information about eligible organisations is available on the [UKRI website](#).

Completing your Je-S submission and attachments

It is now mandatory that the title and abstract of all GCRF proposals reflect the ODA challenge that the research aims to address.

This requirement is in line with increasing transparency around GCRF funded research. Titles and abstracts of funded proposals will be made public via the [International Aid Transparency Initiative](#) databases as well as via [Gateway to Research](#). Therefore it is essential that the ODA aspects, as well as the science, are adequately captured.

Once your application document is created, the Je-S form should for the most part be completed in the standard way using the guidance and help text available in the Je-S system. Please remember that all aspects of the proposal submitted to BBSRC via Je-S should be jointly developed by, and submitted on behalf of, the whole of the project team.

Overseas Co-Is must be named on the Je-S pro forma as applicants. However, their effort, salary, and cost estimate must be entered as '0'. Costs for overseas Co-Is should be entered as described in the Eligible Overseas Costs section above.

Applications to this call will also be required to prepare and submit a number of additional documents as "attachments". Guidance on the specific attachments you are required to submit with the Je-S application is provided below.

Unless otherwise stated, all documents should be prepared in English, should be jointly prepared, and should relate to the project as a whole and cover all project components. Documents should meet standard BBSRC rules, as described in the Je-S Help text.

Attachment	Maximum page length	Attachment type on Je-S submission	Notes
Proposal Cover Letter	1 side of A4	Proposal Cover Letter	Refer to https://www.ukri.org/funding/how-to-apply/ http://bbsrc.ukri.org/funding/apply/
Joint Case for Support	8 sides of A4	Case for Support	
Combined CVs	None	CV	A CV (max two sides of A4 per person) should be included for all named applicants and research staff. These should be combined into one PDF document and submitted on Je-S.
Letters of support	None	Letter of Support	All letters of support (maximum of one side of A4 each) should be combined into one PDF document and submitted on Je-S.
Justification of Resources	Maximum of 3 sides of A4	Justification of Resources	
Official Development Assistance (ODA) Questionnaire	1 side of A4	Non-UK component	Downloadable template on in Downloads section
Assurance Questionnaire	None	Non-UK component	Downloadable template on in Downloads section
Overseas Resource Requests spreadsheet	None	Other attachment	Downloadable template on in Downloads section
Pathways to Impact statement	3 sides of A4	Pathways to Impact	
Data Management Plan	1 side of A4	Data Management Plan	
Diagrammatic Workplan	1 side of A4	Diagrammatic Workplan	
Facility Form	None	Technical Assessment Form	Only required if a project requests access to BBSRC facilities
Animal Usage	1 side of A4	Non-UK component	Only required if project requests use of animals overseas

The following documents must be prepared and uploaded as PDF attachments to your application:

Proposal Cover Letter (up to 1 side of A4)

Applicants' Declarations of Interests are required to be added to the Proposal Cover Letter – please see the guidance provided at

<https://www.ukri.org/files/legacy/documents/declarationofinterests-applicants-pdf/>
[How to apply - BBSRC](#)

Joint Case for Support (up to 8 sides of A4)

Applicants wishing to apply to this call must provide a Case for Support, making the detailed scientific case for the proposed research. Applicants should complete this with the call assessment criteria in mind, and are encouraged to provide information on the following:

- (a) Research track record of the applicants and specific expertise (and access to any specific infrastructure and equipment required to undertake the project) available for the research at the named organisations.
- (b) Background to the topic of research and its wider context, including current priorities and challenges relevant to the project in the participating countries.
- (c) Details of the proposed research and activities to be conducted within the project, including the proposed programme of work, individual measurable objectives against which you would wish the work to be assessed, the proposed methodology and expected outputs, and the scientific excellence and novelty of the proposal.
- (d) The project management plan must be included with the joint case for support.

Combined CVs (2 sides of A4 per named applicant and research staff)

Please provide a single combined PDF document, containing a CV for all named applicants and research staff involved in the project (both UK and overseas).

Letters of Support (up to 1 side of A4 per research organisation)

Please provide a single combined PDF document, containing an official letter of support from the Head of Department/Institute Director for each Research Organisation involved in the project (both UK and overseas). This should include a letter of support from the lead UK institution. All project partners and other collaborators are expected to provide a letter of support. Only directly relevant letters of support should be submitted. These should be on headed paper, signed and dated.

Justification of Resources (up to 3 sides of A4)

All resources requested to undertake the project should be fully justified. The Justification of Resources should provide a breakdown and full written justification of costs requested for the entire project.

Official Development Assistance (ODA) Questionnaire (up to 1 side of A4)

Please complete and attach the ODA Compliance Questionnaire (in Downloads section), explaining how your proposed research is compliant with ODA guidelines. This should be uploaded as an attachment type "Non-UK component". Guidance on the definition of ODA and its interpretation is provided in the OECD's ['What is ODA?'](#) factsheet (see 'External links').

Assurance questionnaire

Please complete the assurance questionnaire for third party research providers. This questionnaire relates to funding received from the UKRI, with elements subsequently sub-contracted out of the lead research organisation to either international Co-Is' research organisations or other sub-contractors, e.g., NGOs or service-providers. **Submission of this form is mandatory** and applications which do not include a completed Assurance Questionnaire will be rejected. The form will be used by the UKRI Funding Assurance team to ensure that adequate due diligence processes are in place. For applications which are recommended for funding, UKRI will complete due diligence checks on all overseas partners before the grants are authorised. The lead UK RO will be expected to help with this process.

It will be a condition of funding that due diligence will be performed to an appropriate standard; failure to provide adequate assurances may result in the application being rejected. This should be uploaded as an attachment type "non UK component".

Overseas Resource Requests spreadsheet

Please complete this spreadsheet to detail the breakdown of costs requested by overseas Co-Investigators. **Submission of this form is mandatory for all applications involving overseas Co-Investigators.** The spreadsheet should be uploaded as attachment type “Other Attachment” with the Je-S submission.

Pathways to Impact statement (up to 3 sides of A4)

Please include a statement on the significance and wider impact of the project which describes the likely impacts that will be generated by the proposed project. Applicants should highlight any opportunities for knowledge exchange and transfer and any wider socio-economic and environmental impacts and benefits of the research. This must be specific to the project and contain timelines and objectives. Please see the guidance provided at <https://www.ukri.org/innovation/excellence-with-impact/>

Data Management Plan (up to 1 side of A4)

Please include a description of the proposed data management and data sharing strategies across the whole consortium, including the management of intellectual property. Please see the guidance provided at <https://www.ukri.org/funding/information-for-award-holders/data-policy/common-principles-on-data-policy/>

Diagrammatic Workplan (up to 1 side of A4):

Please submit a Gantt chart, or other diagrammatic work plan for the project, including timelines and milestones. The work plan cannot be used to extend the case for support. Applicants should ensure that work plan demonstrates equitable and integrated commitments to the project by overseas partners and UK participants, with appropriate divisions of responsibilities.

You should also check if you need to provide the following document:

Facility Form

Please use this attachment type to provide a Technical Assessment Form if your project requests access to BBSRC facilities, referring to the Je-S help for guidance. Failure to include the required forms will result in rejection of the proposal.

Animal Usage

Refer to Use of Animals in Regulation and Ethics section below.

Timeline

Call for Proposals Opens	2 July 2018
Closing date for full proposals	11 Sept 2018
Assessment of full proposals	January/ February 2019
Grants awarded	February 2019
Projects start	1 April 2019

Assessment process

There will be a single stage process involving the submission of full proposals that will be subjected to external peer review followed by assessment by an expert panel (comprising relevant experts from the UK and overseas) that will score and rank the proposals for funding. Applicants will be given an opportunity to respond to reviewers’ assessments prior to the Panel meeting.

The following will be taken into account when assessing the proposal:

- ODA relevance;
- Scientific excellence;
- Fit to the scope of the call;
- Timeliness and promise;
- Capability of the research team;
- Appropriateness of the partnership between the UK and DAC country;
- Arrangements for project management;
- Economic and Social Impact
- Value for money.

GCRF Relevance Score

As well as being scientifically excellent, research supported by GCRF must meet the criteria for classification of expenditure as ODA. In deciding the GCRF relevance score, the Panel will consider the extent to which the proposal meets the criteria for ODA eligibility. We do not expect to fund any proposals through this scheme which score less than 'High' for GCRF relevance.

Score	Definition
High	<ul style="list-style-type: none"> • The proposal identifies a credible development need primarily relevant to the chosen OECD DAC-listed country(ies) • The proposal demonstrates that the planned research activity is appropriate to addressing the identified development challenge(s) • The proposal shows clearly how the expected outputs and outcomes of the planned research activity will promote the economic development and welfare of the chosen country(ies) • The proposal clearly identifies key beneficiaries and impacts in the chosen country(ies) • The proposal demonstrates appropriate measures of success and how these will be monitored and reported
Medium	<ul style="list-style-type: none"> • The proposal identifies a development need and partially demonstrates that it is primarily relevant to the chosen OECD DAC-list country(ies) • The proposal incompletely demonstrates that the planned research activity is appropriate to addressing the identified development challenge(s) • The proposal partly shows how the expected outputs and outcomes of the work will promote the economic development and welfare of the chosen country(ies) • The proposal incompletely identifies key beneficiaries and impacts in the chosen country(ies) • The proposal demonstrates somewhat appropriate measures of success and partially demonstrates how these will be monitored and reported
Low	<ul style="list-style-type: none"> • The proposal does not identify a credible development need and/or does not demonstrate that it is primarily relevant to the chosen OECD DAC-list country(ies) • The proposal inadequately demonstrates that the planned research activity is appropriate to addressing the identified development challenge(s) • The proposal fails to show how the expected outputs and outcomes of the planned research activity will promote the economic development and welfare of the chosen country(ies)

	<ul style="list-style-type: none"> • The proposal does not identify key beneficiaries and/or impacts in the chosen country(ies) • The proposal fails to demonstrate appropriate measures of success and/or fails to demonstrate how these will be monitored and reported
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Funding decisions

BBSRC will make the final decisions on the projects to be funded based on the recommendations of the assessment panel. There is a total budget of £6.9 million available for this call.

All applicants will be advised whether their application has been recommended for funding or will be declined by BBSRC. All applicants will also receive feedback on their application.

The lead Research Organisation will receive an offer letter detailing the level of award and the terms and conditions: it is the responsibility of the lead Research Organisation to distribute copies as necessary. Prior to the issuing of the offer letter, the applicant may be asked to provide further information if the Panel felt that an element of the grant needs further explanation or justification.

Applicants below the funding cut-off will receive a letter informing them that their application was unsuccessful. This letter will include details of BBSRC's resubmission policy.

Awards will be made under UKRI's standard Terms and Conditions of Research Grants (see 'External links'), with additional conditions specific to this call.

Post award considerations

Grant holders will be expected to comply with the award conditions and Grant Maintenance queries should be referred through Je-S. See: [Joint electronic Submission \(Je-S\)](#)

Due to GCRF financial constraints, grant extensions will only be considered under exceptional circumstances (in line with the Equality Act 2010) and will require BBSRC agreement on a case-by-case basis.

Data sharing, open access and intellectual property

In accordance with UKRI's terms and conditions of grants, the ownership and responsibility for exploitation of all intellectual assets, including intellectual property, arising from research funded under the Food & nutrition research for health in the developing world: bioavailability & nutrient content programme will rest with the organisation that generates them.

Where a grant is associated with more than one research organisation and/or other project partner(s), there should be a formal agreement between them setting out the basis of their collaboration, including arrangements for ownership and management of intellectual property and rights to its exploitation. It is their collective responsibility to put in place such an agreement before the research begins.

The collaboration agreement must not conflict with UKRI's terms and conditions or relevant national laws, nor compromise compliance of the research with the criteria for its classification as Official Development Assistance. It must not inappropriately restrict use of outcomes of the research by potential beneficiaries in any partner DAC county. Any licence(s) granted and subsequent commercial exploitation of the research outcomes are expected to be managed in a way that is consistent with the principles of Global Access (as exemplified by the Bill & Melinda Gates Foundation

(<http://globalaccess.gatesfoundation.org>), i.e. that the findings of the research would be communicated promptly and broadly, and that products and technologies arising from the knowledge gained would be made available and accessible at reasonable cost to people most in need of them in developing countries.

Where appropriate, collaboration with industry would be welcomed in research under the Food & nutrition research for health in the developing world: bioavailability & nutrient content programme, provided that arrangements for ownership and exploitation of intellectual property would not conflict with the expectation of alignment with the principles of Global Access. Commercial organisations may participate in research as additional Project Partners, but are not eligible to receive funding from the programme.

Data management

Applicants to this call should give full consideration to the practical requirements for data sharing both within the research teams and to the wider community and describe how this will be conducted. Applicants should ensure that they have requested appropriate resources for data management and data sharing.

UKRI carries out the processing of personal data in accordance with the [General Data Protection Regulation](#) (GDPR). You can find a copy of the UKRI Privacy Notice [here](#).

Regulation and ethics

Research to be funded under this call must comply with all applicable regulatory requirements in the countries where it would be conducted. Approvals must be obtained as necessary in the UK and other participating countries, but all of the proposed research should be carried out in a way that is consistent with the UK's usual ethical standards, whether it would be carried out in the UK or elsewhere.

Ethical considerations

All proposals must demonstrate a commitment to the principles of good research conduct, as described in the BBSRC statement on Safeguarding Good Scientific Practice and the UKRI Policy and Guidelines on the Governance of Good Research Conduct (see 'Related links').

Proposals should take account of the following principles for ethical research:

- research should aim to maximise benefit for individuals and society and minimise risk and harm
- the rights and dignity of individuals and groups should be respected
- wherever possible, participation should be voluntary and appropriately informed
- research should be conducted with integrity and transparency
- lines of responsibility and accountability should be clearly defined
- independence of research should be maintained and where conflicts of interest cannot be avoided they should be made explicit.

Researchers, research organisations and research ethics committees should consider ethics issues throughout the lifecycle of a research project and promote a culture of ethical reflection, debate and mutual learning. The lifecycle of research includes the planning and research design stage, the period of funding for the project, and all activities that relate to the project up to - and including - the time when funding has ended. This includes knowledge exchange and impact activities, the dissemination process - including reporting and publication - and the archiving, future use, sharing and linking of data.

We also expect non-academic stakeholders, including potential research users and intermediary organisations with a mandate to communicate research who are listed in the proposal, to be included and involved in both the early design and on-going conduct of research projects. This is especially the case where research is taking place within government systems, without compromising the independence or integrity of the research. There is recognition that the exploitation of new knowledge does not just occur at the end of a research project, but rather is embedded throughout the research process itself. The assessment panel will consider plans for involvement of non-academic stakeholders in the research process.

Use of animals

Experiments using animals funded by BBSRC must comply with the Animals (Scientific Procedures) Act 1986 (ASPA), amended 2012 and any further embodiments. Institutions and grant holders are responsible for ensuring that all appropriate personal and project licences required under the Act have been granted by the Home Office, and that appropriate Animal Welfare and Ethical Review Body approval has been given. All BBSRC awards are made on the absolute condition that no work that is controlled by the Act will begin until the necessary licences have been obtained.

Applicants must ensure that all of the proposed research, both in the UK and any partner country, will comply with the principles of BBSRC's guidance on "Responsibility in the use of animals in bioscience research" (see 'Related links') and with the Animal Use requirements in Section 4 of the [BBSRC Grants Guide](#). In particular, UK Institutions should be aware of the following aspect of the guidance relating to research or collaboration outside the UK:

"When collaborating with other laboratories, or where animal facilities are provided by third parties, researchers and the local ethics committee in the UK should satisfy themselves that welfare standards consistent with the principles of UK legislation (e.g. the Animals (Scientific Procedures) Act 1986), and set out in this guidance, are applied and maintained. Where there are significant deviations, prior approval from the funding body should be sought and agreed."

All applications proposing to use animals in the UK and overseas should refer to the UKRI guidance and ensure they include a signed statement (Non-UK component) from both UK (and overseas PIs), indicating that they have fully and appropriately considered this animal usage: [BBSRC Animal Use in Research Guidance](#)

Transfer of biological materials

Collection and exchange of material may occur between collaborating institutions, as necessary, in strict compliance with the legislation in effect in both countries.

Contact

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References

1. <http://www.glopan.org/foresight>
2. The Global Nutrition Report 2017: <http://globalnutritionreport.org/the-report/>
3. UNICEF / WHO / World Bank Group Joint Child Malnutrition Estimates, May 2017: http://www.who.int/nutgrowthdb/jme_brochure2017.pdf?ua=1