Quick Reference

Please note that you must read the full call document, including the Appendices, for guidance before submitting your proposal

Diagnostics, prosthetics and orthotics to tackle health challenges in developing countries

Call type: Invitation for proposals

Closing dates:
Expression of interest: Thursday 20 April 2017 at 16:00
Full proposal: Thursday 25 May 2017 at 16:00

Funding Available: Up to **£7.5 million** is available from EPSRC for this call through the Global Challenges Research Fund. We aim to fund 6-8 projects through this activity.

How to apply: Applicants must submit an Expression of Interest via the EPSRC website by 16:00 on 20 April 2017 to be considered through this call. Full proposals must be submitted by 16:00 on 25 May 2017.

Assessment Process: Proposals will undergo peer review and assessment at a prioritisation panel.

Key Dates:

Activity	Date
Call for proposals issued	9 March 2017
Deadline for Expressions of Interest	20 April 2017, 16:00
Deadline for full proposals	25 May 2017, 16:00
Panel meeting	October-November 2017
Funding decision	October-November 2017
Grant start date	01 February 2018

Additional information:

- As the funding is provided through the Global Challenges Research Fund, the research activity proposed must be in line with Official Development Assistance (ODA) guidelines, and evidence of ODA compliance must be provided in the application. For further ODA guidance, please see http://www.rcuk.ac.uk/documents/international/gcrfodaguidance-pdf/.
- Proposals to this call must address one of the following two thematic areas:
    - Low cost, rapid, point of care imaging and diagnostic technologies;
    - Affordable prosthetics and orthotics.
- The research activity proposed must be predominantly within EPSRC remit, although interdisciplinary and/or multidisciplinary proposals are welcomed.
- No capital equipment, i.e. single items of equipment over £10,000 in value, may be requested.
- Standard EPSRC eligibility requirements apply to this activity for UK Investigators and research organisations.

- Appropriate collaborators in one or more low- or middle-income countries (LMICs) are a mandatory requirement for proposals submitted through this call. These collaborators may be academic researchers and/or research users.
- Overseas Co-Investigators from research organisations in LMICs may be included on proposals but are not mandatory. This includes researchers from all countries on the Development Assistance Committee (DAC) list of the Organisation for Economic Cooperation and Development (OECD), including upper-middle income countries. We will also support costs associated with research conducted in LMICs, e.g. consumables, field work.
- The lead institution and Principal Investigator must be based in the UK. Although proposals may be multi-institutional, only one application form should be submitted for each bid. Joint proposals on separate Je-S forms will not be accepted.
- The projects may be up to 36 months in duration.

Contacts:

- Gavin Salisbury (Gavin.Salisbury@epsrc.ac.uk) – general information and ODA/Global Challenges Research Fund queries
- Lewis Preece (Lewis.Preece@epsrc.ac.uk) – questions on ODA and healthcare technologies
- Sarah Billingham (Sarah.Billingham@epsrc.ac.uk) – questions on the diagnostics priority area
- Martin Champion (Martin.Champion@epsrc.ac.uk) – questions on the prosthetics/orthotics priority area

Diagnostics, prosthetics and orthotics to tackle health challenges in developing countries

Call type: Invitation for proposals

Deadline for Expressions of Interest: 20 April 2017 at 16:00
Closing date: 25 May 2017 at 16:00

Related themes: Engineering, Healthcare Technologies

Summary

This call is supported through EPSRC's Global Challenges Research Fund (GCRF) allocation. The aim of this activity is to support an internationally leading programme of research, centred around innovative healthcare technologies, to tackle the challenges faced by developing countries. Proposals must address one of the following two priority areas to be considered through this call:

- Low cost, rapid, point of care imaging and diagnostic technologies
- Affordable prosthetics and orthotics.

The proposed research must be predominantly in EPSRC remit, although interdisciplinary and/or multidisciplinary proposals are welcomed. Proposals must also be compliant with Official Development Assistance (ODA) guidelines.

Appropriate collaborators in one or more low- or middle-income countries (LMICs) are a mandatory requirement for proposals submitted through this call. These collaborators may be academic researchers and/or research users. Overseas Co-Investigators must be researchers based in research organisations in countries on the Development Assistance Committee (DAC) list of the Organisation for Economic Cooperation and Development (OECD), including upper-middle income countries. We will also support costs associated with research conducted in LMICs, e.g. consumables, field work.

Applicants should note that all Co-Investigators will need to have a Je-S account before they can be added to the Je-S proposal form; the individual Co-Investigators will also have to activate their account. This process can take up to three working days so please allow plenty of time to complete this step before the closing date of the call.

Applicants must submit an Expression of Interest via the call page on the EPSRC website by **16:00 on 20 April 2017** to be considered through this call. Full proposals from applicants who have not previously submitted an Expression of Interest will not be considered.

The call for full proposals closes at **16:00 on Thursday 25 May 2017**. Up to **£7.5 million** is available from EPSRC for this call. We aim to support 6-8 research projects through this activity.

Background

The Global Challenges Research Fund (GCRF) is a £1.5 billion UK Government fund, administered by the Department of Business, Energy and Industrial Strategy (BEIS), to support cutting-edge research that addresses the challenges faced by developing countries through:

- challenge-led disciplinary and interdisciplinary research;
- strengthening capacity for research and innovation within both the UK and developing countries;
- providing an agile response to emergencies where there is an urgent research need.

GCRF is administered through delivery partners, including the Research Councils and national academies, and forms part of the UK's Official Development Assistance (ODA) commitment, which is monitored by the Organisation for Economic Cooperation and Development (OECD; http://www.oecd.org/). ODA-funded activity focuses on outcomes that promote the long-term sustainable growth of countries on the OECD Development Assistance Committee (DAC) list, which may be found at:

http://www.oecd.org/dac/stats/daclist.htm.

This call is supported through EPSRC's GCRF allocation. The aim of this activity is to support an internationally leading programme of research, centred around healthcare technologies, to tackle the challenges faced by developing countries. Proposals must address one of the two priority areas described below to be considered through this call.

General principles

The overall aim of this call is to develop frugal innovation approaches for healthcare technologies in specific priority areas, which have the potential to revolutionise care pathways in low- and middle-income countries (LMICs). Such technologies must be developed in partnership with teams from LMICs, and have the delivery of impactful, cost-effective, culturally acceptable, and sustainable welfare and economic benefits within the LMIC(s) as their primary objective.

The desired outcomes from research funded through this call include:

- High quality, novel Engineering and Physical Sciences research stimulated by the health and workflow challenges in LMICs;
- Strong and lasting collaborations which build skills across career stages with partners in LMICs;
- Research outputs with the potential for significant impact on the welfare and economic development of LMICs;
- Increased global research capacity to understand and address the healthcare technology challenges specific to resource-poor settings;
- Increased engagement from business and charities in the development of frugal health technologies to share skills and knowledge and enable deployment at scale;
- A quantitative understanding of the economic benefits of the specific health intervention in the partner LMICs, including the broader benefits of a healthier population;

- Embedded culture of multidisciplinary innovation and entrepreneurship across the whole project team.

In order to realise an enduring impact on health in LMICs, proposals submitted in response to this call must:

- Build on excellent research strengths in the Engineering and Physical Sciences in the UK, in collaboration and partnership with health partners in the LMIC(s). The LMIC partner(s) are best placed to provide the "pull", to refine the clinical need and define the pathway to potential impact in that country as a contribution to the project.
- Demonstrate and evidence the clinical need in the LMIC.
- Demonstrate an understanding of care pathways in the LMIC setting and how the intervention will deliver improved health outcomes, including such aspects as deployment, behaviour change, adherence and concordance in parallel to technology development.
- Demonstrate a strong understanding of how to measure the potential impact of the proposed research in an LMIC context and have identified suitable, realistic, collectable metrics for this. Such metrics must have been agreed with the LMIC partner.

Appropriate collaborators in one or more LMICs are a mandatory requirement for proposals submitted through this call. However, overseas Co-Investigators are optional.

For further advice and guidance on preparing GCRF research proposals please see the links given in the **Guidance on writing an application** section below.

Priority areas

1. Low cost, rapid, point of care imaging and diagnostic technologies

Aim

The aim of this priority area is the development of novel, low cost, rapid, point of care imaging and diagnostic tools that can be used to diagnose and/or monitor both infectious and non-communicable diseases; and as screening tools to identify those people most in need of specialised easily maintained or repairable, services.

Context

There is a general need in LMICs for low cost, rapid, point of care imaging and diagnostic tools for deployment in resource-poor settings, particularly but not exclusively in rural areas. This context requires innovative technologies that are highly robust and reliable, portable, cost effective and fit for purpose. The technologies must address specific unmet clinical needs in the LMIC, which may be very different to the UK. The ubiquity of mobile telephones in LMICs, combined with novel diagnostic and imaging technologies, offers a transformative opportunity for access to and delivery of high quality healthcare and disease surveillance, particularly in rural areas.

In many LMICs, the number of specialist clinicians relative to the size of the population is very small. Mostly, these are located in larger cities and the time available for a consultation per patient is much shorter than in the UK. As a result, access to high quality and advanced healthcare is limited. There is a need for affordable, robust, reliable and portable solutions that can be easily transported to remote locations, to assist diagnosis, monitoring, treatment delivery and screening. There are particular requirements for technology to act as a skills multiplier in LMICs to broaden access to informed clinical decision-making. For example, a diagnostic or imaging tool that can be easily used by a non-expert with decision support tools that enable them to make well informed choices about patient care would widen access to more advanced healthcare. There are also needs in specialised centres in LMICs for affordable imaging and diagnostic technologies to enable improved interventions and better outcomes, and a better understanding of health conditions specific to the setting. For example, a better understanding of how maternal and fetal infection affects pregnancy and the subsequent infant and child development would enable the development of interventions to reduce global maternal and child mortality and morbidity rates.

Design of the devices and user interfaces must be integrated into the programmes of work proposed. Consideration of the social and economic environment and infrastructures in the LMIC needs to be an intrinsic part of the research and technology development in order to maximise potential adoption and acceptance.

Factors to be considered include:

- The unmet clinical need identified by project partners in the LMIC(s);
- Specificity and sensitivity of tools appropriate to need. Western gold standards may be prohibitively expensive and/or over specified for the LMIC context;
- Scalability of technology;
- End-user participation in research, design of user interface, achieving acceptance and adoption through changing behaviours and care pathways;
- Ease of use, simplicity, intuitive design;
- Non-specialist decision support and data visualisation;
- Robustness and reliability in challenging environments e.g. heat, dust, humidity;
- Ease of deployment, existing infrastructure and care pathways in the LMIC;
- Data capture, integration and analytics;
- Secure data handling, transfer and storage;
- Power and bandwidth efficiency (where appropriate);
- Digital systems need to operate remotely without constant access to a power, mobile or internet network, but also to be able to plug into global surveillance and local infrastructure;
- Health economics, market size, affordability and price point;
- Validation and regulation;
- Ethics and responsible innovation (see links in the **Guidance on writing an application** section below).

2. Affordable prosthetics and orthotics

Aim

The aim of this priority area is the development of technologies for orthotics and prosthetics which meet the functional, environmental and economic factors of resource-constrained settings.

Context

Physical disabilities such as a missing limb or facial disfigurement due to birth defect, disease or amputation have a severely negative effect on the affected individual's quality of life, welfare and potential for employment in many countries. In LMICs, people with disabilities are particularly vulnerable to poverty, discrimination, food insecurity, poor housing, lack of access to safe water and sanitation, and inadequate access to education and healthcare. The cultural stigma associated with disabilities also leads to psychological impacts which often have a negative effect on the individual's mental health and wellbeing.

There are few commercial offerings which meet the needs of resource-constrained settings, and they have limited functionality. There is a need for functional prosthetics and orthotics which are affordable, robust, reliable and fit for purpose. They need to be suitable for sustained use and easy to manufacture, maintain and/or repair. Highly specialised, advanced robotic prosthetics created for a developed world context might be over-specified and unaffordable in LMIC settings.

There is an opportunity to use the specific constraints and needs of people in LMICs to stimulate transformative approaches to the design and manufacture of prosthetics and orthotics across a wide range of disabilities. These could include maxillofacial prosthetics, splints, braces etc., as well as prosthetic limbs. There is the potential to apply leading materials, design and manufacturing knowledge to develop novel processes that are fit for purpose in LMICs. This includes but is not limited to additive manufacturing (3D printing), as well as other enabling technologies.

Factors to be considered:

- The unmet need identified by project partners in the LMIC;
- Development of functionality in the prosthetic or orthotics appropriate to the LMIC;
- End-user participation in research, design, achieving acceptance and adoption;
- Ease of use, simplicity, non-stigmatising design;
- Robustness and reliability in challenging environments e.g. heat, dust, humidity;
- Ease of deployment, existing infrastructure and care pathways in the LMIC;
- Manufacture in the LMIC – rapid, low-skilled, cheap;
- Power and energy storage (where required);
- Health economics, market size, affordability and price point;
- Validation and regulation;
- Ethics and responsible innovation (see link under **Guidance on writing an application** section below).

In both areas, interdisciplinary and/or multidisciplinary projects are welcomed, where appropriate. As noted above, it is vital that applicants consider the international development context of their proposed research, including socio-economic and environmental factors, as appropriate. We also welcome the involvement of engineering and physical sciences disciplines not typically engaged in international development research. Industrial collaborators and other research users are also welcome as project partners, subject to EPSRC standard funding rules. Appropriate collaborators in one or more LMICs are a mandatory requirement in this activity, but overseas Co-Investigators are optional.

The proposed research must be predominantly in EPSRC remit. If you have any doubts on this point please contact EPSRC before applying. Proposals must also be compliant with ODA guidelines; evidence of ODA compliance is required as part of your application (see **Guidance on writing an application** below).

Proposals not meeting either of these requirements in the judgement of EPSRC staff will be rejected without recourse to peer review.

For more information about EPSRC's portfolio and strategies, see our website: https://www.epsrc.ac.uk/research/ourportfolio/

Funding available

Up to £7.5 million is available from EPSRC for this call, supported through the Global Challenges Research Fund. We aim to support 6-8 research projects through this activity. Projects may be up to 36 months in duration.

Through this activity we will support costs associated with research conducted in LMICs, e.g. consumables, field work. The proportion of funds directed overseas is at the discretion of the applicants and should be based on the best balance to achieve the project's objectives. For full details of what is permissible please see the Appendices to this call document.

Guidance on the types of support that may be sought from EPSRC is given on the EPSRC website (https://www.epsrc.ac.uk/funding/howtoapply/) which should be consulted when preparing all proposals.

Equipment

Capital equipment, i.e. any single item of equipment over £10,000 in value (including VAT), is not available through this call. Consumable costs and small items of equipment are permitted according to EPSRC standard funding rules.

For more information on equipment funding, please see: https://www.epsrc.ac.uk/research/facilities/equipment/

Eligibility

Standard EPSRC eligibility requirements apply for the UK team in this activity. For information on the eligibility of organisations and individuals to receive EPSRC funding, see the EPSRC Funding Guide: https://www.epsrc.ac.uk/funding/howtoapply/fundingguide/

As this call is a targeted funding opportunity provided by EPSRC, UK higher education institutions, research council institutes and some independent research organisations are eligible to apply. A list of eligible organisations to apply to EPSRC is provided at: http://www.rcuk.ac.uk/funding/eligibilityforrcs/

Overseas Co-Investigators from research organisations in Low- and middle-income countries (LMICs) may also be included on proposals through this call. This includes researchers from all countries on the Development Assistance Committee (DAC) list of the OECD, including upper-middle income countries.

Applicants should note that all Co-Investigators will need to have a Je-S account before they can be added to the Je-S proposal form; the individual Co-Investigators will also have to activate their account. This process can take up to three working days so please allow plenty of time to complete this step before the closing date of the call. We will not reopen the call for applicants who do not complete this step in time.

The process for creating a Je-S account can be found at: https://je-s.rcuk.ac.uk/Handbook/pages/SettingupaJeSaccount/SettingupaJeSaccount.htm

How to apply

An Expression of Interest must be submitted via the call page on the EPSRC website by **16:00 on 20 April 2017**. Full proposals submitted without a corresponding Expression of Interest (EoI) will not be considered. However, details provided at the EoI stage are not binding and changes may be made at the full proposal stage. The EoI stage is primarily to allow early consideration of potential reviewers and panel members. In addition, EPSRC staff will provide feedback to those applicants where the EoI appears not to be in the scope of the call.

You should prepare and submit your full proposal using the Research Councils' Joint electronic Submission (Je-S) System (https://je-s.rcuk.ac.uk/). Although proposals may be multi-institutional, only one application form should be submitted for each bid. Single-form applications are required in order to facilitate integration across the research partners. **Joint proposals on separate Je-S forms will not be accepted.**

The lead institution must be based in the UK and must be eligible to hold EPSRC grants.

When adding a new proposal, you should select:

- Council 'EPSRC'
- Document type 'Standard Proposal'
- Scheme 'Global Challenges Research Fund'
- On the Project Details page you should select the 'Diagnostics, prosthetics and orthotics to tackle health challenges in developing countries' call.

Note that clicking 'Submit document' on your proposal form in Je-S initially submits the proposal to your host organisation's administration, not to EPSRC. Please allow sufficient time for your organisation's submission process between submitting your proposal to them and the call closing date. EPSRC must receive your application by **16:00 on 25 May 2017**.

Guidance on the types of support that may be sought and advice on the completion of the research proposal forms are given on the EPSRC website (https://www.epsrc.ac.uk/funding/howtoapply/) which should be consulted when preparing all proposals.

Guidance on writing an application

Applications must include the following components:

- **Case for Support** (up to **ten** sides of A4 in total), including:
    - track record of applicants (up to two sides of A4)
    - description of proposed research (up to six sides of A4)
    - management plan, including risk management strategy (up to two sides of A4)

Applicants should demonstrate in the Case for Support how a consideration of maximising potential impact in the LMIC(s) is embedded in their proposed programme of work. Secondary benefits to the UK of this research should also be described, i.e. UK national importance. See also the RCUK GCRF ODA guidance at:
http://www.rcuk.ac.uk/documents/international/gcrfodaguidance-pdf/

Beyond this, the case for support should focus principally on the scientific work to be undertaken. Applicants should describe how impact activities, such as user engagement, will be integrated into the project's programme and methodology. In this document applicants should particularly focus on when and how impact activities and communication channels will intersect with the research and how they will shape the development of the research programme. Where impact activities (for example, understanding LMIC needs) form a substantive part of the work programme, such as a specific work package or task, this should be noted in this section. However, a full description of activities and methodologies might be most appropriately detailed in the Pathways to Impact document (see below).

- **Official Development Assistance (ODA) statement**: one side of A4 (attachment type '**Non-UK components'**) in which you should consider the following questions:
    - Which country/ countries on the DAC list will directly benefit from this proposal?
    - How is your proposal directly and primarily relevant to the development challenges of this country / these countries?
    - How do you expect that the outcome of your proposed activities will promote the economic development and welfare of this country / these countries?

- **Pathways to impact statement** (up to two sides of A4)

In this document applicants should present a coherent strategy for accelerating and maximising the impact of the proposed research in the partner LMIC(s), with a particular focus on the activities that will be undertaken to address barriers that might prevent impact from arising. In contrast to the Case for Support this document should focus on the specific methodologies and strategies that will be

employed to enhance the impact of the proposal and to outline the resources that will be requested (or otherwise acquired) in order to achieve this. Applicants should demonstrate an understanding of the future development pathway for their proposed research and show that they have considered the likely next steps for the outcomes of their research. They should consider how they will obtain any data or evidence they will need, or other appropriate measures they will take, to sufficiently de-risk the technology to the point that it will be a suitable prospect for support from translational funding entities. Public engagement activities may also be an appropriate mechanism for engagement in the LMIC to advance acceptance and adoption of the novel technology.

The EPSRC Healthcare Technologies impact and translation toolkit highlights a number of potential barriers that applicants could consider where relevant to the research programme:
https://www.epsrc.ac.uk/research/ourportfolio/themes/healthcaretechnologies/strategy/toolkit/

There is no expectation that all impact activities must be undertaken by the researcher team, but it is expected that appropriate activities are identified to ensure that research outputs can and will be implemented in a the LMIC context. See also the section on **User engagement strategy** below.

- **Diagrammatic work plan** (one side of A4)
- **Justification of resources** (up to two sides of A4)
- **CVs** (up to two sides of A4; **only** for each named researcher, visiting researcher and researcher co-investigators, where applicable)
- **Statements of support from project partners**, where applicable (no page limit) – attachment type 'Project partner letters of support'. For organisations offering resources (either cash or in-kind) to the project **only**.
- **Technical assessment** for the use of any major facility - where applicable (no page limit)

Applicants should use the Ethical Information section on the Je-S form to demonstrate to reviewers that they have fully considered any ethical issues concerning the material they intend to use, the nature and choice, current public perceptions and attitudes towards the subject matter or research area. EPSRC will not fund a project if it believes that there are ethical concerns that have been overlooked or not appropriately accounted for. All relevant parts of the Ethical Information section must be completed. If the research will involve human participation or the use of animals covered by the Animals (Scientific Procedures) Act 1986 it is recommended that applicants pay particular attention to the guidance highlighted below. EPSRC reserves the right to reject applications prior to peer review if the Ethical Information sections are not completed correctly.

Further guidance on completing the Je-S form can be found at https://je-s.rcuk.ac.uk/Handbook/pages/GuidanceonCompletingaStandardG/EthicalInformation.htm.

Other relevant guidance includes: EPSRC's policy on animal use in research:

https://www.epsrc.ac.uk/about/standards/animalresearchpolicy/

and the Responsible Innovation Framework

https://www.epsrc.ac.uk/research/framework/.

Please note that on submission to EPSRC **all** non-PDF documents uploaded onto Je-S are converted to PDF, the use of non-standard fonts may result in errors or font conversion, which could affect the overall length of the document.

In addition, where non-standard fonts are present, and even though the converted PDF document may look unaffected in the Je-S System, when it is imported into the Research Councils Grants System some information may be removed. We therefore recommend that where a document contains any non-standard fonts (scientific notation, diagrams etc), the document is converted to PDF prior to attaching it to the proposal.

For advice on writing proposals see:
https://www.epsrc.ac.uk/funding/howtoapply/preparing/

Further guidance and advice on preparing proposals for GCRF initiatives may be found at:

www.bbsrc.ac.uk/documents/gcrf-agriculture-food-systems-generic-observations-pdf/

www.fasttrackimpact.com/single-post/2017/02/02/How-to-write-a-fundable-proposal-for-the-Global-Challenges-Research-Fund

User Engagement Strategy

Successful applicants will be required to develop and execute a strategy for engaging with potential users of the research funded in the project; resources for this activity can be requested as part of the Pathways to Impact and must be justified in the application. This strategy should be reviewed and updated regularly as part of the formal management of the grant. As noted above, in this activity it is vital that applicants consider the international development context and potential users of their proposed research in LMICs, giving appropriate consideration to socio-economic and environmental factors.

The strategy should cover:

- how and when potential users have been / will be identified;
- what form the engagement will take;
- what steps will be taken to ensure that outputs of the research are made available to potential users;
- suitable metrics for determining the success of the strategy in delivering value to users.

Assessment

Assessment process

Proposals will undergo peer review via Je-S. Applicants whose proposals receive sufficiently supportive postal reviews will have the opportunity to respond to the anonymous peer reviewers' comments. These proposals will then be considered by a prioritisation panel in October/November 2017. Proposals with insufficiently supportive reviewers' comments will be rejected without consideration by the panel and with no opportunity to respond to reviewers' comments.

Please note that if demand is high we reserve the right to convene an expert panel to sift uncompetitive full proposals prior to postal peer review. Applicants whose proposals are rejected at this stage, should it prove necessary, will receive feedback in the form of a brief summary of the expert panel's views. At the funding prioritisation panel meeting proposals may be grouped by topic and ranked on separate lists, as required. The panel(s) will assess the proposals against the assessment criteria described below.

Applicants will be informed of the outcome as soon as possible after the panel meeting to enable the awards to start on **01 February 2018**.

Assessment criteria

Quality

- Novelty, relationship to the research context, and timeliness
- Ambition, adventure, and transformative aspects identified
- Appropriateness of the proposed methodology

Importance

- International development importance of this research, in particular the clinical need in the partner LMIC(s)
- Contribution to other research areas, societal challenges, and/or emerging industries
- Secondary benefits to the UK of this research – UK national importance; contribution to the EPSRC's Delivery Plan Outcomes

Impact

- Relevance and appropriateness of beneficiaries identified and collaborators proposed, including businesses and charities where appropriate
- Understanding of care pathways in the LMIC setting
- Quality of the impact pathways described to facilitate/accelerate impacts of the research in one or more LMICs
- Understanding of and plans for how to measure the potential impact of the research proposed in the LMIC context

Applicants' ability to deliver the proposed research

- Balance of skills of the proposed project team, including multidisciplinary innovation and entrepreneurship where appropriate
- Appropriateness of international partnerships

Resources and management

- Effectiveness of the proposed planning and management, including risk management strategy
- Appropriateness of the resources requested

Fit to the call

- Proposals should clearly address one of the priority research themes identified above.
- The potential for strong and lasting collaborations which build skills across career stages with partners in LMICs is also an important consideration, as noted above under **General principles**.

Feedback
No prioritisation panel feedback will be provided, although the panel outcomes will be published after the meeting on EPSRC Grants on the Web.

Submissions to this call will count towards the Repeatedly Unsuccessful Applicants Policy. Further information about the policy can be found at: https://www.epsrc.ac.uk/funding/howtoapply/basics/resubpol/rua/

Guidance

Guidance for reviewers
Reviewers are requested to consider the assessment criteria listed above when considering the strengths and weaknesses of proposals submitted through this call. Please note that the detailed assessment criteria under the main headings differ from typical EPSRC calls – see above for details. Specific attention should be paid to the international development context of the proposed research, in particular the clinical need in partner LMICs.

Information about the EPSRC peer review process and guidance for reviewers can be found at: https://www.epsrc.ac.uk/funding/assessmentprocess/review/.

Additional grant conditions
EPSRC grants funded through this call will be subject to the following additional conditions.

Global Challenges Research Fund
The Global Challenges Research Fund is part of the UK's Official Development Assistance (ODA). The investigators must ensure the research that is undertaken as part of this grant is compliant with ODA rules and regulations.

In addition to the provisions in GC23, the investigators must acknowledge the Global Challenges Research Fund and EPSRC in any publications or events associated with this grant.

Investigators must assist EPSRC with any additional reporting requirements requested by the Department of Business, Energy and Industrial Strategy (BEIS).

Starting Procedures
Notwithstanding GC4, this grant has a fixed start date of **01 February 2018**. No slippage to this date will be allowed.

Due Diligence
Where components of the research are sub-contracted to a non-UK research organisation and/or include a Co-Investigator at a non-UK research organisation, the lead UK research organisation must undertake due diligence checks to ensure that the funding will be appropriately used. The research organisation must confirm to EPSRC that it has undertaken suitable due diligence checks within three months of the start of the grant.

Additional Global Challenges Research Fund Conditions

Research must meet the RCUK Research Governance guidelines outlined in GC2. For clinical studies involving human participants and/or patients, appropriate consent must be obtained. Additionally, any research undertaken outside the UK must have both UK and in-country ethical approvals as appropriate.

This award is dependent on continuing Government commitment for the Global Challenges Research Fund initiative. In the event that this support is withdrawn, EPSRC reserves the right to terminate the award.

Due to the funding timescales of the Global Challenges Research Fund, grant extensions will only be considered under exceptional circumstances (in line with the Equality Act 2010) and will require EPSRC agreement on a case-by-case basis. The research organisation remains responsible for compliance with the terms of the Equality Act 2010 including any subsequent amendments introduced while work is in progress; and for ensuring that the expectations set out in the RCUK statement of expectations for equality and diversity are met.

Key dates

Activity	Date
Call for proposals issued	9 March 2017
Deadline for Expressions of Interest	20 April 2017
Deadline for full proposals	25 May 2017, 16:00
Panel meeting	October/November 2017
Funding decision	October/November 2017
Grant start date	01 February 2018

Contacts

General information and ODA/Global Challenges Research Fund queries:

Gavin Salisbury
01793-444040
Gavin.Salisbury@epsrc.ac.uk

Questions on ODA and healthcare technologies:

Lewis Preece
01793-444282
Lewis.Preece@epsrc.ac.uk

Questions on call scope:

Sarah Billingham – diagnostics
01793-444284
Sarah.Billingham@epsrc.ac.uk

Martin Champion – prosthetics and orthotics
01793-444380
Martin.Champion@epsrc.ac.uk

Queries regarding the submission of proposals through Je-S should be directed to the Je-S helpdesk:

01793 444164
JeSHelp@rcuk.ac.uk

Please contact your university research office for help and advice on writing your proposal and allow enough time before the closing date for your organisation's submission process.

Change log

Name	Date	Version	Change
Gavin Salisbury	06/03/17	1.0	N/A

Appendices

Overseas costs

Only Co-Investigators and Researchers from research organisations based in Low and Middle Income Countries (LMICs) on the OECD DAC list of ODA recipients are eligible to receive funding through this call; this includes investigators from international research organisations which have appropriate expertise and a significant presence in the LMIC(s) in which projects are based. These non-UK organisations will receive funding through the UK lead research organisation; they cannot act as the lead organisation. Non-UK Co-Investigators based in countries other than LMICs are not permitted.

Other partners, including non-governmental organisations, charities and industry collaborators, are welcome on proposals, but only research organisations based in partner LMICs may request costs from EPSRC. If you have any queries in this regard please contact us before applying.

Please note that overseas costs should only be applied for where they cannot reasonably be covered by existing funding. For example, an overseas Co-Investigator's salary may be fully covered and no UK contribution is required to recompense their time in carrying out the project. In such a case the total number of hours to be charged to the grant over its duration should be shown as zero on the Je-S form, although the hours per week they undertake to contribute to the project should be entered on the form as normal.

The UK research organisation awarded the grant is responsible for the conduct and administration of the grant. It is accountable for the effective use of public funds, and must therefore ensure that all grant monies are subject to proper financial management processes. It is the research organisation's responsibility to ensure that expenditure on collaborations in the UK and abroad is subject to robust controls to ensure value for money and propriety; all costs should be fully vouched and maintained for possible inspection and checks by, or on behalf of, EPSRC.

If research resources are sub-contracted to a non-UK research organisation or if overseas Co-Investigators are included in a project, the UK lead research organisation must undertake due diligence checks to ensure that the funding will be appropriately used. The lead UK research organisation must confirm to EPSRC that it has undertaken suitable due diligence checks within 3 months of the start of the grant.

Permissible overseas costs are described in the following table. This table applies **only** to costs associated with collaborators from research organisations in LMICs. Collaborations with other countries are permitted, but are subject to standard EPSRC funding rules.

Description	EPSRC fEC contribution
Salary costs for overseas Co-Investigators and any locally employed Researchers or Technicians, i.e., percentage contribution of actual salary, should be entered under the appropriate Investigator or Staff section of the Je-S form. In each case these costs must be marked as an Exception.	100%

Description	EPSRC fEC contribution
Travel and subsistence for overseas Co-Investigators and/or Researchers. These costs should be entered under Directly Incurred costs as usual but marked as an Exception.	100%
Other Directly Incurred costs charged by the overseas organisation and associated with the research, for example consumables, field work, etc. These costs should be entered as usual but marked as an Exception.	100%
Other Directly Incurred - Indirect and Estates costs at the overseas organisation: we will pay a contribution to these costs, which should be calculated as 20 per cent of the overseas research organisation's staff costs, including Investigators, Researchers and Researcher Co-Investigators **only**. This total should be entered as a separate item under Other DI costs and marked as an Exception.	100%
Travel and subsistence (including bench fees) for UK-based researchers going abroad to undertake work. This does not include costs incurred directly by the overseas organisation when the UK researcher is active in that country.	80%

Je-S attachments Check List

Standard:

Attachment Type	Maximum Page length	Mandatory/Optional	Extra Guidance
Case for Support	10 pages	M	Comprising up to two A4 sides for a track record, six A4 sides describing proposed research and its context, and up to two A4 sides for management and risk strategy.
ODA statement -'Non-UK components' attachment type	1 page	M	Explanation of how the proposed research meets ODA guidelines. See main text for questions to consider.
Pathways to Impact	2 pages	M	
Workplan	1 page	M	
Justification for Resources	2 pages	M	
CVs	2 pages each	As required	For named and visiting researchers, and

			Researcher Co-Investigators **only**. CVs for Co-Investigators are not required and will not be accepted.
Project Partner Letters of Support	No page limits	As Required	Must be included from all named project partners. Must be on headed paper, and be signed and dated within six months of the proposal submission date.
Letters of Support	No page limits	As Required	Letters from the partner research organisations in LMICs are permitted, but not from any other organisation.
Technical assessment	No page limit	As required	
Proposal Cover Letter	No page limit	As required	The cover letter can be used to highlight any important information to EPSRC. This attachment type is not seen by reviewers or panel members.
Other attachment	No page limit	As required	This can be used for a document that does not fit under any of the headings above. This attachment type is not seen by reviewers or panel members.

Please ensure you adhere to the above attachment requirements when submitting your proposal. Any missing, over-length or unnecessary attachments may result in your proposal being rejected.