

## Section A: Official Development Assistance (ODA) and GCRF strategy

### The strategy

1. Summarise the key aspects of your three year strategy for development related and GCRF research activity, including:

- a. Your institution's strategy and priority objectives for all development related research activity funded through all sources for three years from 2018-19.
- b. A summary of the key aspects of your three year strategic plan for QR GCRF, in light of the criteria and objectives for the GCRF outlined in the guidance.
- c. How activity funded through QR GCRF fits into your broader strategy and priorities for all development related research activity.
- d. How activity funded through QR GCRF relates to the UK strategy for the GCRF.<sup>1</sup>
- e. How your development-related and GCRF strategies relate to your wider institutional strategy for using QR.
- f. Likely key barriers and enablers to implementing your strategy.
- g. The key activities by which you will realise your objectives, such as capacity and capability building; mono-disciplinary, interdisciplinary and collaborative research; generating impact from research; meeting the full economic cost of GCRF activity funded through other sources; rapid response to emergencies with an urgent research need; and pump priming.
- h. The main developing countries, included in the Development Assistance Committee (DAC) list, which you intend to collaborate with.

St. George's strategy for development related research activity is expressed in our Global Health research strategy. In this, we work with national and international partners to improve the prevention, treatment and control of diseases, particularly in resource-poor settings. Most of our strategic partners are in Lower and Middle Income Countries on the DAC list of ODA recipients. The four priority objectives are to i) further basic understanding of target diseases; ii) develop new medical interventions and technology platforms; iii) carry out phase I, II and III clinical trials with national and international partners; and iv) work with policy makers and other local stakeholders to promote the development and implementation of proven interventions.

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<sup>1</sup> UK Strategy for the Global Challenges Research Fund,  
<http://www.rcuk.ac.uk/funding/gcrf/challenges/>

St. George's has well established research collaborations with partners around the world and we have a strong track record of maintaining and nurturing our links with strategic partners, for example through funding and staffing of long term clinical and non-clinical research programmes in South Africa and South America. Through our Centre for Global Health ([www.sgul.ac.uk/centre-for-global-health](http://www.sgul.ac.uk/centre-for-global-health)), we are currently running multi-centre trials for TB chemotherapy and cryptococcal meningitis diagnosis and treatment throughout Africa. In Ecuador, we established Latin America's only rural birth cohort in 2006, through which we developed close links with Brazilian scientists in emerging infectious diseases and diagnosis of sexually transmitted infections, thereby opening opportunities for research training and capacity building. Our EC funded project, RESCAP-MED developed a network of public health researchers across the MENA region who continue to collaborate both locally and with us, resulting in approximately 30 peer-reviewed publications, mostly written by junior researchers from the region who had never published previously.

St. George's 3-yr strategic plan for QR GCRF is designed to address the fundamental requirements of research excellence, impact, partnerships and sustainability. The QR GCRF allocation will be linked to existing successful programmes to maximise impact. In relation to the indicative QR GCRF allocation for our institution, we propose to use the investment to strengthen the capacity for research and innovation in our existing Centre for Global Health, by recruiting an early career Lecturer in Global Health supported by a 3 year international PhD studentship.

The new lecturer will be specifically appointed to carry out cutting-edge research that addresses ODA principles, namely the challenges faced by developing countries, focusing primarily on providing benefit to developing countries. The reasons we think that this investment represents the best use of funding is because it builds research capacity, it is supported by an established community of experts engaged in related research, it allows use of QR GCRF to leverage further funding for ODA research activity through new grant funding and it links into a sustainability and continuity plan for the Centre for Global Health.

The co-supported PhD studentship is also linked to the objectives of GRCF and our strategy for Global Health research. The studentship will be awarded to a young scientist from a country on the DAC list. In this way, the funding is used to support the new lectureship, has a defined focus on a developing country agenda and contributes to our strategy of developing capability in countries we work with. Training overseas scientists has been a critical component of our Global Health research strategy. PhD studentships such as these are used to develop new research skills and understand scientific research in a UK environment, through which we hope to strengthen our strategic partners' capacity and expertise. In addition, such training often leads to broader ranging partnerships because we can continue to support scientists on their return home into more senior research positions, to identify and develop new lines of collaborative research.

The specific research activity will be determined by the newly appointed lecturer, but we will ensure that it specifically addresses the RCUK's GCRF research agenda, particularly in relation to sustainable health and well-being, as part of "Equitable Access to Sustainable Development". Almost all of the current research within our Centre for Global Health is focused in this area. One example of this is our work on cryptococcal meningitis which causes more than 100,000 deaths per year in Africa, particularly in people living with HIV. Over many years, we have co-ordinated clinical trials in countries including Botswana, Zambia, Malawi, South Africa, Tanzania, Cameroon and Uganda to implement rapid diagnostic tests, simplify and optimise anti-fungal treatment. We have also championed improving access to essential antifungal medicines in resource-poor countries across a number of platforms, including the Cryptococcal Meningitis Action Group (Loyse et al 2013, *Lancet Inf. Dis.* 13(7):629-37).

Although the specific research focus of the new lecturer is to be determined, our current activities demonstrate how our health focus can also address other aspects of RCUK's GCRF agenda, such as "Sustainable livelihoods supported by strong foundations for inclusive economic growth and innovation". For example, another research programme that has been established at St. George's for 15 years is the exploitation of plant biotechnology for the manufacture of high-value recombinant medicines for developing country infectious diseases. The research is targeted at development of vaccines and monoclonal antibodies, and the production species is tobacco, an important global non-food crop. A recent Horizon 2020 grant was awarded to develop this research programme to explore re-purposing tobacco as a biofactory for pharmaceuticals to help preserve traditional tobacco farming areas, now that smoking tobacco cultivation is on the decline. The potential for transferring this innovative manufacturing technology to developing countries has been a long-term goal (Ma et al., 2013, *Plant Biotechnol J.* 11(9):1029-33).

The three year strategy needs to be initiated and implemented quickly. Investing QR GCRF funds into two new positions reduces the risk of potential barriers. We are confident that a Lecturer position could be filled with a high quality candidate with minimal delay, based on our recruitment experiences over the last 2 years. Similarly, we believe that the PhD studentship would be readily filled.

The success of the appointments will depend on the ability of the lecturer to establish a research programme and obtain further research funding, specifically in areas that focus on delivering benefits to developing countries. A specific element of St. George's Research Strategy is to support our young researchers. The new appointees will join one of our three research Institutes, and become a member of our Centre for Global Health. The new lecturer will join a cohort of (currently 18) recently appointed lecturers who we support through mentorship, peer review of grant applications and a regular programme of induction and training sessions. We also target pump-priming pilot project funding and PhD studentships towards our ECR cohort. The international PhD student will also join a cohort of peers, including students in

our MRC Doctoral Training Partnership scheme, which is run jointly with the London School of Hygiene and Tropical Medicine and has Global Health as one of its three main themes. Training and personal development programmes are also organised for this group of scientists on a regular basis.

Our research environment encourages inter-disciplinary and collaborative research. This will be essential for the academic success of the new Lecturer, and will be one of the most attractive elements of the position. Most important is our link to St. George's University Hospital NHS Foundation Trust with whom we share our site. Our Infection Clinical Academic Group integrates the university research Institute for Infection and Immunity with the adult and paediatric clinical infection units and the microbiology diagnostic service of South West London Pathology. We also encourage collaborative links across our research institutes and with local strategic research organisations (eg The Animal and Plant Health Agency and Public Health England). A large proportion of our Global Health research is conducted through multi-partner collaborations, so the new lecturer will have access immediately to a large population of international partners.

Historically, we have responded to emergencies with urgent research need, so the new lecturer will be well placed, supported and encouraged to play an appropriate role if such circumstances arise. PIs from St. George's were involved with the response to the Ebola outbreak in West Africa and continue to work on Ebola vaccine responses and neutralising antibody development. Through our birth cohort in Ecuador, we have been studying the spread of Zika virus in South America and developing rapid diagnostic tests. We are also developing new therapeutics to Chikungunya virus in response to the current epidemic in the Caribbean.

The Lecturer position will be primarily a research post, but in line with institutional policy, the lecturer will eventually be expected to spend up to 20% of their time on teaching activities. Although this will not be enforced in the first two years, there are many relevant teaching opportunities which the post-holder is likely to take advantage of, including four undergraduate modules in Global Health Diseases, Global Health Justice, Global Governance for Health and Global Health & Comparative Health Systems and an MSc Global Health programme.

Whilst the new appointment and the studentship are the key activities in our use of the GCRF funds, St. George's will support the strategy in important ways. The GCRF funding term is for 3 years, but St. George's will underwrite the Lecturer recruitment if necessary for a minimum of 5 years, to ensure that we attract the strongest candidates. Similarly, the GCRF funding allocation will not meet the full cost of an international student for three years, so St. George's will award a waiver for the additional costs of overseas tuition fees.

Through the Centre for Global Health, we currently collaborate with 20 developing countries from the DAC list of ODA recipients on clinical trials for tuberculosis drug regimes, cryptococcal meningitis diagnosis and treatment, neonatal sepsis and antibiotic resistance, neonatal vaccines, as well as disease surveillance and epidemiology and novel manufacturing technologies for recombinant therapeutics:

Least Developed: Bangladesh, Benin, Malawi, Tanzania, Uganda, Zambia.

Other low income: Kenya.

Lower middle income: Cameroon, Ghana, India, Vietnam.

Upper middle income: Botswana, Brazil, People's Republic of China, Ecuador, Gabon, Peru, South Africa, Thailand, Tunisia.

An important aspect of our QR GCRF strategy is sustainability. The lecturer position is assured for five years in the first instance, underwritten by the university. At the end of this period, the position will be reviewed, to consider if it should be made permanent within the university. International PhD studentships is a programme that QR GCRF would help to support. The studentship programme is an important part of realising our internationalisation strategy, by allowing us to help develop the best young scientists in our global strategic partner institutions, establish close relationships by having them work within our own research teams for a significant period, and allowing us to help build capacity in research organisations that we have already identified to be world leading in our research fields. The outputs and achievements from the QR GCRF supported research will be sustainable because they are so closely linked to the most important elements of our research strategy. We will seek to appoint an individual whose research interests and aspirations are closely aligned to those already in the Centre, not only to add value, but also so that we can provide a high level of support and mentorship to maximise the chances of long-term success.

St. George's has a very strong track record for research impact. One of the reasons for this is that we identify translational or clinical relevance of research very early and this will be essential to deliver on solving problems of developing countries. Our highly integrated fundamental and clinical research approach makes St. George's an attractive place to establish a career in Global Health research.

## 2. Provide details of the main intended **outcomes and impacts** of your strategy.

The main intended outcomes and impacts of our strategy are:

1. Excellent research reflected through high quality outputs (publications, conference presentations etc), leading to successful follow-on grant funding to perform research that relates to the GCRF strategy and provides benefits to developing countries.
2. High impact research resulting in tangible benefits in developing countries. This could be establishment of new health systems or policies, change in treatment regimes, or development of new treatments or prophylactic medicines.
3. Stronger research partnerships with strategic international institutions.
4. Sustainable growth in Global Health research, building on existing research strengths and succession planning.
5. Training and development of early career researchers.

## Management of GCRF

3. How will your HEI **monitor** and **evaluate** its progress and compliance in ODA and GCRF activity, including assessing geographical distribution of activity, outputs, outcomes and economic and social impacts?

Please describe the policies, procedures and approach you have in place to measure progress, evaluate outcomes, identify lessons learned, and ensure ODA compliance.

St. George's Centre for Global Health sits within the Institute for Infection and Immunity which monitors and evaluates research activity. The Centre is led by Professor Tom Harrison, who presents an annual report detailing ongoing research, research collaborations, new grants, research outputs and impacts, and research plans for the following year.

Monitoring and evaluation of GCRF funded research will still take place through the Centre for Global Health and be part of Prof. Harrison's annual report to the Institute. With support from the Joint Research and Enterprise Service, the report will be broken down into individual types of activity in relation to funding streams. This, alongside a report on ODA compliance will also be presented annually to St. George's Research Strategy Committee (RSC), which has overall responsibility for research activities in the University. Key members of this committee are the Principal, the Deputy Principal for Research, Directors of Research Institutes, and the Head of the Joint Research and Enterprise Service. The RSC will monitor and review activity, ODA compliance, evaluate outcomes, identify any lessons learned and implement and monitor any changes required. The RSC will have ultimate responsibility for explaining how QR GCRF funded activities align with our research strategies, and for providing the evidence that these activities are ODA compliant.

## Section B: Use of QR GCRF 2018-19 allocation and future QR GCRF priorities

4. Please complete the table in Annex A2 detailing the expected spending and activities for QR GCRF in the academic year 2018-19. Note that the total QR GCRF spending must equal the indicative allocation (available in Annex C), and all activities must be ODA-compliant for strategies to be assessed as ODA-compliant overall.

5. Please add here any explanatory notes on how you have completed the table in Annex A2 that will help inform assessment of ODA compliance.

6. How would your **priorities and activities** for 2018-19 QR GCRF change if the funding level differs from that outlined in indicative allocations? Please include detail of how priorities will change with increases and

decreases to QR GCRF funding, and details of how each priority meets ODA criteria.

Priority and activities may alter according to the extent of the change in funding levels.

A 10% decrease in allocation would allow us to keep the new clinical lecturer appointment but the international PhD studentship would be unaffordable. This would be replaced by funding for a pilot project for the lecturer, and a pilot project funding scheme open to members of the Centre for Global Health for projects that are ODA compliant. A 40% decrease in allocation would make the lecturer position unaffordable, but we would keep the international PhD studentship (open to members of the Centre for Global Health for ODA compliant projects) and a pilot project scheme.

A 10% increase in allocation would be used as a pilot project grant to the new lecturer. A 40% increase gives flexibility and options that would be considered are offering the new blood position at Senior Lecturer/Readership level, offering a second international PhD studentship, or offering international fellowships for post-doctoral scientists from our developing country strategic partners for research periods for up to 6 months in our laboratories. We estimate the cost of these fellowships to be in the region of £25,000 each. This decision would be made at the Research Strategy Committee.

7. Based on indicative funding allocations, what are your **priorities** for QR GCRF activity in 2019-20? Please include detail of how priorities will change with increases and decreases to QR GCRF funding, and details of how each priority meets ODA criteria.

The strategy outlined above is for three years, with our priorities outlined in the first paragraph of Section 1. We will achieve these by committing to the appointment of two new individuals for five years (lecturer) and three years (PhD student). So the main priorities remain the same throughout the three years.

2019-2020 being year two of the three, is likely however to be the point at which the lecturer would be expected to focus on adding value to the QR GCRF investment by seeking further grant funding. In this regard, they would be supported by academic colleagues and administrative staff at St. George's.

If the QR GCRF funding were to decrease in years 2 and/or 3, we would have to prioritise seeking alternative funding to live up to our commitments.

8. Based on indicative funding allocations, what are your **priorities** for QR GCRF activity in 2020-21? Please include detail of how priorities will change with increases and decreases to QR GCRF funding, and details of how each priority meets ODA criteria.

As above. Our priorities will continue as the commitment to the two appointed posts.