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.¹
 - 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.

A. Strategic priorities of RVC, 2018-19 to 2020-21

- i. Enter into partnerships with UK and overseas HEIs, Government agencies and businesses, to build interdisciplinary teams that tackle issues of global importance, developing solutions that are acceptable locally;
- ii. Use the RVC's unique knowledge and expertise in the field of veterinary science to:
 - a) Tackle neglected zoonotic diseases influencing human and animal health;
 - b) Understand factors that influence pathogen flow from wildlife into domestic animals and people;
 - c) Determine the factors associated with intensification of livestock production that drive unintended consequences, such as antimicrobial resistance, emergence of zoonotic diseases that affect food safety; and

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

- d) Develop novel, rapid, accurate field diagnostic tests and practical platforms for vaccine delivery to improve response to field outbreaks of infectious diseases in remote areas of the world.
- iii. Train veterinary scientists (in the UK and in partner countries) to be capable of leading interdisciplinary teams of researchers, and encourage thinking at a holistic systems level to come up with technically-viable and socially-acceptable solutions for major global issues.
- iv. Build capacity in developing countries through training activities in country, by distance learning and by placements in the UK.

B. Key aspects of the RVC's three-year strategic plan for QR GCRF

- Ensure that RVC maximises the impact from research conducted under the three major ZELS and two FADH grants (viz. Brucellosis control; Avian Influenza; Zoonotic Schistosomiasis and endemic Coccidiosis in poultry); and continue to develop further the partnerships formed in West Africa, Bangladesh and India (cf. Table A, Annex A2).
- Work with funding agencies, local governments and national veterinary services and international bodies (UN FAO) to develop an eradication plan for Pestes des Petits Ruminants (PPR) in Africa.
- Build expertise and capacity in the application of epidemiological expertise in aquaculture through partnerships with Stirling University and ILRI, to address issues of intensification of the aquaculture industry in Bangladesh, Vietnam and Egypt.
- Use the preparation of 'One Chick' (the RVC-led GCRF Collective Fund Hub bid on the intensification of poultry production in India, Bangladesh, Vietnam and Sri Lanka) to establish key partnerships with HEIs and businesses working with the poultry industry in these countries, and develop in-country research programmes on antimicrobial resistance, food-borne zoonotic pathogens and avian influenza.
- Establish a partnership in virology with the International Reference Laboratory at APHA to facilitate research into high pathogenic avian influenza and Newcastle's Disease Virus, establishing a critical mass of applied research in this area through new senior appointments and support of a strategic fellowship for a future leader in this area.
- Work with the British Medical Journal to establish on-line training programmes in veterinary epidemiology tailored to the needs of developing countries, in collaboration with and supported by the US Government.
- Develop further the RVC's existing strategic partnership with ILRI (East Africa), to include mechanisms for staff exchange.
- Support the PhD programme of SACIDs by providing placements for up to 5 PhD students from sub-Saharan Africa over the next two years; ZELS studentships will continue to be supported through QR GCRF over the next two years (see Table A, Annex A2).
- Where appropriate, use QR GCRF to create additional impact from the portfolio of knowledge exchange activities conducted by 'The Bloomsbury SET' (a £5 million project funded by HEFCE / Research England under round two of the Connecting Capabilities Fund). This will help strengthen RVC's work under the auspices of the

London International Development Centre (LIDC), which brings together several colleges of the University of London (Birkbeck, City, LSHTM, QMUL, RVC, SOAS, UCL - IoE).

- Where appropriate, provide support for vaccine development for Thieleria, building on a grant from the Bill and Melinda Gates Foundation.

C. How activity funded through QR GCRF fits into RVC's broader strategy and priorities for all development-related research activity

The RVC's over-arching strategic goal in research is to undertaken internationally excellent research that benefits the health and welfare of animals and people. Activity funded by QR GCRF fits perfectly within our Livestock Health and Production Research programme, where the Ecosystems Health group strives to understand factors influencing pathogen (or genes on plasmids) flow between different species and the environment, and how different systems and societies influence these. This research aims to develop surveillance and disease control solutions that are economically- and socially acceptable and can be implemented through legislation that works. This research strategy can be applied to endemic problems in the UK as well as in developing countries. Research in developing countries can benefit our efforts to devise solutions for the UK and vice versa. There is a good deal to be learnt by the comparison between systems – an approach we are very familiar with in veterinary medicine (comparison across species, and learning from the differences between species is a strategy we have long adopted in teaching and in research involving the individual animal). This same approach also underpins our strategy within our Comparative Physiology and Medicine research programme.

D. How RVC's activity funded through QR GCRF relates to the UK strategy for the GCRF

The RVC's QR GCRF funded activity is contributing to the production of a more resilient agriculture (and aquaculture) system that is capable of feeding a growing population whilst minimising the global issues of antimicrobial resistance, avian influenza pandemics (which threaten both animal and human health) and food-borne zoonotic diseases such as Brucellosis, Campylobacter, E. coli and Salmonella. Thus, our research is generating new knowledge that contributes to the GCRF's vision of ensure that everyone across the globe has access to secure and resilient food systems, supported by sustainable marine resources and agriculture, and sustainable health and well-being.

The intensification of livestock systems in peri-urban areas of developing countries is being driven by rapid urbanization and the development of mega-cities. Our research aims to assist in this development in a way that minimizes the risks to human and animal health, whilst protecting the welfare of the animals involved. Thus, we are also contributing to the GCRF's wider strategic goal of building sustainable cities and communities.

E. How RVC's development-related and GCRF strategies relate to its wider institutional strategy for using QR

Please see [C] above. As research in developing countries represents about 30% of the RVC's overall research activity by volume, the GCRF strategies are integral to our overall research strategy and are fully supported by use of QR in supporting research through:

- pump-priming new activities to generate pilot data;

- supporting newly-appointed academics to establish their research programme at the RVC;
- supporting PhD studentships and promoting co-supervision across institutions to develop interdisciplinary partnerships (e.g. through LIDC and Bloomsbury LIDo Studentships); and
- supporting travel and networking events of academics leading on overseas partnership development.

F. Likely barriers and enablers to implementing the strategy

- Ability / inability to raise capital funding for the proposed £27 million Veterinary Vaccinology and Cell Therapy Hub that will renew ageing infrastructure for infectious disease research at the RVC's Hawkshead campus (Hertfordshire). The RVC has submitted a proposal to the Hertfordshire LEP under the Local Growth Fund, to support this development. A decision on this application is expected before the end of March 2018.
- 2. Ability to recruit excellent research-active academic staff with the desire to work in a development context, post-Brexit.
- 3. Continued access to funding for collaborative research projects in EC Framework Programme 9 (from 2020-21), many of which address the same issues as the GCRF funding.
- 4. Continued success in attracting RCUK, Newton Fund and Gates Foundation monies to sustain our programmes of research on zoonotic disease, with future calls and scheme having less pressurised timelines (thus enabling us to plan, respond to the calls and implement our research plans and consolidate our research partnerships more effectively).
- 5. Access to further rounds of Research Council Impact Accelerator Account (IAA) funding and Follow-on Funds. Longer timelines for IAA funds, coupled with the ability to make institution-level decisions on what to take forward, would facilitate long-term planning of impact development activity, and allow RVC to maximise the impact arising from its research.

G. The key activities by which RVC will realise its objectives

Please see Table A, Annex A2 for a list of the main activities to be supported by QR GCRF.

H. Main developing countries included in the DAC List, that RVC is collaborating with, or intends to collaborate with

Please note that the following list is indicative rather than exhaustive.

<u>Least Developed Countries</u>: Bangladesh [Avian Influenza ZELS]; Benin, Burkina Faso, Burundi, Central African Republic, Chad, Mali, Mauritania, Niger, Rwanda, Senegal, Togo [Brucellosis and/or Schistosomiasis research]; Ethiopia, Mozambique, Tanzania, Uganda,

Zambia [SACIDs countries – various projects on livestock infectious disease surveillance and control].

Other Low Income Countries: Kenya, Zimbabwe [SACIDs and other projects on livestock disease surveillance and control].

<u>Low- to Middle Income Countries</u>: India [FADH funded research – Brucellosis and Coccidiosis]; Cameroon, DR Congo, Côte d'Ivoire [Brucellosis ZELS]; Sri Lanka [Elephants – health, husbandry, breeding]; Mongolia [curriculum development – veterinary medicine]; Vietnam [diseases of poultry].

<u>Upper Middle Income Countries</u>: Botswana [SACIDs collaboration]; China [diseases of poultry – Hong Kong City U]; Gabon [Brucellosis ZELS]; Jordan [wild camels and MERS – JUST collaboration]; Thailand [Elephants – health, husbandry, breeding]; Turkey [veterinary epidemiology].

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

The main outcome of the RVC's QR GCRF strategy will be enhancements to current levels of support offered by the UK in terms of assistance to developing countries. This will help fulfil the Government's commitment to international development, by addressing the United Nations' Sustainable Development Goals 1 to 3 (i.e. elimination of poverty and hunger, better food security, improved nutrition and sustainable agriculture, healthy lives). The RVC's portfolio of activities in developing countries aims to spread good practice in veterinary epidemiology, economics and public health, including food safety and biosecurity. As one of only four UN FAO Reference Centres for Veterinary Epidemiology worldwide, the RVC provides advice and expertise on risk-based animal disease surveillance to the FAO and its member countries, to help achieve FAO's goal of food security for all. In addition, the College plays an important role internationally by training veterinarians, veterinary nurses and biological scientists, with courses offered at undergraduate, masters and postgraduate level. Our graduates find employment in industry, government agencies and third sector organisations, both in the UK and overseas, including many countries on the DAC list. The RVC also provides an extensive continuing professional development programme for practising veterinarians, including courses available online.

The main **socio-economic impacts** of the strategy are expected to be in improved human and animal health. These impacts will be delivered by working alongside the RVC's strategic partners in developing countries in Africa and Asia, resulting in significant benefits for these organisations and their host nations, e.g. capacity-building; exchange of know-how through networking and staff exchanges; placement of skilled specialist graduates; licences for the use of RVC's intellectual property, leading to the development of new therapies, treatments, products and services; access to specialist equipment, clinical services and experimental animal facilities; evidence-based policy-making for public health, food safety and security; and improvements in animal husbandry, resulting in sustainable farming practices.

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.

Monitoring of progress and compliance in ODA and GCRF activity will be the responsibility of the College's Research Strategy Committee, which meets on a quarterly basis. Every six months, this Committee will receive a written report from the Research Office, summarising the QR GCRF-supported activity undertaken by RVC academics and research staff in the previous period, and including information on the geographical distribution of work undertaken. This activity is expected to correspond to the list provided in Annex A2, with the potential for delivery of additional projects should monies become available to supplement the College's current QR GCRF allocation – see Section B, Q6. The quarterly reports will be used to confirm ODA compliance, measure progress against objectives, evaluate whether the funding has achieved the desired outputs and outcomes (see Q2 above), and identify any lessons that have been learned from the activities carried out using these funds. Evaluation will take the form of a self-assessment (carried out by the member(s) of academic staff that are leading the activity), which is then reviewed by members of the Committee.

From summer 2018, the Research Office will employ a new member of staff whose duties will include undertaking appropriate due diligence on overseas partners (based on good practice guidance provided by the Research Councils and research charities such as the Wellcome Trust); and thereafter to assist academic staff to capture outputs, outcomes and impacts arising from the College's research and knowledge exchange programmes. The RVC has recently (February 2018) purchased the Vertigo Ventures 'Impact Tracker' tool, and this will be deployed over the coming months in support of information capture and curation, both in relation to QR GCRF and a wider funding portfolio. This tool will facilitate better reporting on impact arising from research grants, and be used to assemble the evidence base required to underpin Impact Case Studies for the REF 2021.

In anticipation of these developments, and following recent changes to the Research Councils' position on due diligence, the RVC is in the process of overhauling its current policies and procedures surrounding overseas partners and due diligence. We expect to have new guidelines drafted by 31 May 2018.

At present, before any funds are released the RVC undertakes checks on partner institutions to ascertain: the experience of partner institution staff in managing similar types of grant; legal status of the organisation; and stability and financial health of the organisation. We also review the FCO status of the host country. By means of a New Supplier Registration form, accompanied by a standardised Collaboration Agreement, we assess the ability of overseas partners to report on their use of funds – including their ability to evidence payments and transfers. We seek to minimise advances in cash wherever we can, and generally keep these below £5000 for a single payment. No further advances will be made to a partner if they have not evidenced to our satisfaction expenditure against an earlier advance.

Our standard Collaboration Agreement also requires all partners to provide assurances in regard to ethics and governance of research, health and safety standards, and to specify the procedures they have in place to limit anti-bribery and corruption. These should be equivalent to the level expected in the UK. We secure the partner's agreement to make available to the RVC a copy of the relevant organisational policies (e.g. as documented in the partner's Financial Regulations), should these be requested; and to agree to a site visit should there be any concerns about the conduct of the research undertaken by, or on behalf of, the partner.

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.

Please note that the DAC nations listed in Table A, Annex A2 are indicative rather than absolute. Where funds will be used to support research studentships, these could include activities in countries on the DAC list that are not identified in Table A.

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.

If the QR GCRF funding for 2018-19 is *reduced*, the RVC will prioritise those activities at the top of the list in Table A, Annex A2, and so on down the list until such time as the funds are exhausted. Should an *increase* in funding be forthcoming, in accordance with the ODA / GCRF guidance set out in the template (Annex B, Section 6), the College will use these funds to promote the economic development and welfare of developing countries. We will initiate some or all of the following actions, depending on the amount of additional funding received: a) offset the cost of eligible research studentships (stipends and fees) that currently receive funding from the RVC; and/or b) assist in meeting the full economic costs of eligible research grants funded by charitable bodies such as the Gates Foundation; and/or c) help in generating further impact from research that contributes to improvements in the health and welfare of humans and animals in countries that meet the ODA and GCRF compliance criteria.

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.

Our priority in 2019-20 will be to continue to support the strategic aims stated in Section A, Q1A, and activities detailed in Section A, Q1B and Table A, Annex A2, respectively. As noted in response to Q6, in the event of a decrease in QR GCRF funding, activities at the top of the list will have first priority, and so on down the list. If additional funding is made available, we will utilise this in the same manner as described in response to Q6.

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.

Our priorities for 2020-21 will be as stated above in our responses to Q6 and Q7. Likewise, should the QR GCRF allocation to the College decrease or increase, we will support activities in the manner outlined in our response to Q6.