

International Veterinary Vaccinology Network (IVVN) Fellowship Application Guidance

Summary

The International Veterinary Vaccinology Network (IVVN) aims to promote vaccine research and development against livestock pathogens that cause diseases significant to low-and-middle income countries (LMICs). The remit of the IVVN includes all species that are of agricultural significance in LMICs including (but not limited to) poultry, aquaculture, ruminants and swine with an emphasis on molecular and cellular biology work relevant to vaccine development. Key aims of the IVVN are to bring together partners from academia, industry and other sectors, and to form partnerships between researchers based in the UK and LMICs.

Due to an under-representation of women in science in LMICs, the IVVN will make fellowships available to address and support the professional development of female post-doctoral researchers from an LMIC country and working at an LMIC-based research organisation. Fellowship applications are welcome from female post-doctoral researchers ('Mentee') to work with a principal investigator ('Mentor') based in the UK or other institutes within countries outside of the Mentee's country. We would also recommend that the Mentee identify an additional Mentor within their own institute that can offer support and advice from a local perspective. Although the Mentee is required to be female, there is not a gender requirement for either local or international mentors. The IVVN expect this Mentee/Mentor relationship to be identified prior to applying for funding. Although it is anticipated that most applicants will be able to identify their mentors, the IVVN will attempt to provide assistance where required. To facilitate this (and ensure proposals are considered to fulfil the remit of the fellowship call) we are requesting applicants to initially complete a letter of intent form where details of the Mentee/Mentor and the scientific concept of the project will be outlined. Fellowships are available for a duration of between 9 and 11 months and £50,000 is available per awarded fellowship. Fellowships are available via competitive application to the Network Management Board (NMB). The parameters on which applications will be judged include:

- 1 - *The relevance of the scientific challenge being addressed*; the primary criteria is that a key bottleneck to vaccine development is being addressed.
- 2 - *The significance of the potential outcome of the project*; considered in terms of direct applications and/or as a transferable model to other veterinary species or human vaccinology.
- 3 - *Feasibility of project*; likelihood that the stated objectives of the proposals will be achieved.
- 4 - *Dependency on Mentee-Mentor interaction to conduct the project*; demonstration that the interaction between the Mentee and Mentor will provide complementary expertise to surmount challenges that the Mentee working in isolation cannot.
- 5 - *Innovation*; how using the Mentee-Mentor interaction is allowing novel approaches to dealing with the identified challenge to be formulated.
- 6 - *Opportunities for securing subsequent funding*; the potential output of the project must be sufficient to permit subsequent eligible funding submissions to be made.
- 7 - *Effect of fellowship on the career development of the Mentee*; the result of the project and Mentee-Mentor relationship must have a positive effect on the career development of the Mentee.

Awardees will be required to submit scientific and financial reports at the end of the project. Awarded fellowship titles, with a non-confidential lay summary, will be included in IVVN outcomes and publicity.

Expectations/Background

The Mentee/Mentor partnership: In a recent survey of IVVN members, the need for effective mentorship was identified as a critical requirement by female researchers from LMICs. The purpose of the fellowship programme is to support the professional and personal growth of the Mentee to effectively place the Mentee on the path to a successful scientific career. This call aims to assist promising women LMIC researchers to establishing a mentoring relationship with an international senior researcher (it is recommended that a local senior researcher is also recruited to support the Mentee). The Mentor should be able to support the Mentee both scientifically (i.e. enhance the scientific skills of the Mentee, introduce the Mentee to relevant networks etc.) and also assist them in developing their career by providing advice regarding the broader challenges of establishing a scientific career, including development of the skills required to generate, execute and communicate effectively about their, research. The Mentor and Mentee should jointly identify areas that require strengthening and develop a learning plan to address them during the fellowship. The Mentee and Mentor are expected to develop a schedule of meetings (online or physical) for the entire period of the fellowship. The Mentee is encouraged to keep a log of these meetings and the agenda discussed in order to track progress. We are not placing any constraints on the format that the Mentee-Mentor interaction will take – that will depend on the scientific need of the fellowship and the most effective mechanisms for ensuring the career development of the Mentee. The Mentee/Mentor will be requested to describe what form(s) the mentorship will take and justify why this is the best suited to the Mentee's need as part of the application process.

At the end of the fellowship, the Mentee will be expected to provide a plan for next steps with the help of the Mentor (ideally this would include plans for submitting a grant proposal to extend the science conducted in the fellowship).

Although the focus of the fellowship is on the Mentee there are obvious multiple benefits to the Mentors – the opportunities to forge new collaborative links, to work with novel data/sample sets, to work with new and enthusiastic researchers – as well as to help the career development of junior colleagues. It is imperative that the career development of the Mentee is the main priority of the fellowship and the Mentor is expected to ensure that the Mentee is encouraged to develop their own scientific ideas, that their research interests are prioritised and that they are central in driving forward the intellectual direction of the fellowship project. Intellectual property accruing from the project will be jointly owned by the Mentee's research organisation and the Mentor's research organisation respectively. However, it is expected that every effort will be made by the Mentor to ensure that the Mentee receives the maximum benefit and recognition possible from work undertaken during the fellowship, including aiming to have joint publications of the results generated under the project. The Mentor and Mentee are both expected to maintain a high level professional relationship and conduct throughout the period of the fellowship.

Funding eligibility

- **Funding is for female, post-doctoral (or individuals who will have obtained their PhD before the fellowship begins) IVVN members who are from an LMIC country and working at a LMIC-based research organisation.** A research organisation in this context will cover IVVN Members based at academic institutes, governmental organisations, non-governmental organisations or industry. Network membership is free and you can apply [here](#).

- **Applicants should not exceed five years in ^{*}active postdoctoral research employment prior to the date of the announcement of the grant award.**

^{*}Duration of career breaks for caring duties and maternity and adoption leave will be taken into account when calculating the length of postdoctoral research employment.

What can be applied for?

Scientific remit of the fellowships:

- Functional characterization of host pathogen interactions to identify potential vaccine targets
- High throughput antigen identification and testing
- Bioinformatics for vaccine development
- Typing pathogen strains and serotypes for vaccine matching
- Scientific proof of concept studies
- Studies involving immunological correlates of vaccine protection
- Studies developing new challenge models

If the scientific concept is outside areas described above, please contact the IVVN to discuss before submitting a letter of intent.

The following will not be considered for funding: research outside the IVVN objectives and remit; projects from non-members of IVVN; PhD projects; applicants from Mentees in non-LMIC countries.

Value of grant: £50,000 (at 100% FEC) for 11 months maximum. **(Due to certain funding constraints requiring the fellowships to be completed within a certain time period, unfortunately we cannot accommodate part-time working or extended periods of leave).**

LMIC funding: to be considered for the LMIC funding level you must be from an LMIC country and working at a LMIC-based research organisation. A list of LMIC countries can be found [here](#) (all countries in the list are LMIC).

Eligible costs:

1. A stipend of up to £500 per month for the Mentee. The stipend should be consistent with current international levels for similar positions within the LMIC country. If the Mentee is in current employment with an LMIC institution and is earning a lower salary, the fellowship stipend will be used to meet the difference between this lower salary and the expected international rate. The Mentee is expected to declare any other source of salary should it become available during the fellowship.
2. Limited laboratory equipment in the LMIC laboratory to enable conduct for the research.
3. Relevant laboratory reagents for LMIC laboratory and/or mentor's laboratory
4. Travel and subsistence of the Mentor or Mentee for short stays in LMIC or mentor laboratories
5. Cost of attending short training courses or scientific conferences
6. Overhead costs like internet connectivity, computer access (including purchasing a laptop for the Mentee, publication costs), etc.
7. Bench fees (for Mentor's or Mentee's institution, as applicable, for managing and hosting the Mentee) may be eligible but are subject to review and approval from IVVN.

Permission should be sought and obtained from the IVVN for any other activities that are not listed above.

Application process

In the first instance, the applicants (Mentee) are required to submit a letter of intent via email to IVVN@roslin.ed.ac.uk by the **9am on 9 April 2020**. This is to include brief details of the following: the Mentee, the scientific concept of the project, the local and international mentors if identified already or the scientific and mentorship qualities required by the Mentee for the successful completion of the project and to ensure that their career development is supported throughout the fellowship. The letter of intent is required to i) ensure that Mentees have the required mentors in place (or the IVVN can attempt to assist in identifying appropriate mentors) and ii) the scientific concept fulfils the remit of the IVVN objectives and fellowship call. Applications will not be rejected after the letter of intent stage except if proposed fellowship projects do not fulfil the remit of the call.

Thereafter, applicants will receive an email inviting them to submit the final application form and associated documents which must be submitted via e-mail by **9am on 20 July 2020** to the Network Manager, Dr Carly Hamilton, at IVVN@roslin.ed.ac.uk. You will receive acknowledgement of your application within two working days of submission. Applications received after the deadline will not be considered.

Review

All applications received in a call go to the IVVN Network Management Group (NMG: NMB, director and co-director - details of NMG membership is available on the IVVN website) for initial assessment and assignment of reviewers. If ineligible for funding, or if funding is refused, the application will be returned to the applicants. Reviews for each proposal will be completed by two members of the NMG and an external expert, and scored according to a standard protocol. NMG members and external experts will be excluded from review and subsequent discussions about an application where they have a conflict of interest (see below for details on conflicts of interest). Following review of all applications, a ranked list will be used to select applications for funding which will be approved by the NMG. The external advisory group (EAG), at an IVVN annual meeting, will have access and oversight of the review process of funding applications to ensure transparency, fairness and consistency. If necessary, shortlisted candidates may be called for interview.

All information submitted in the application and associated documents are held in strictest confidence and any personal data will be used by us in accordance with the IVVN Network Privacy Notice (found at <https://www.intvetvacnet.co.uk/catalyst-funding/privacy-statement>); all NMG, EAG members and external experts have signed a confidentiality agreement as a requirement of their participation.

Notification of Review Results

Successful fellowships will be sent award letters confirming the funds available and for awardees to sign confirming agreement to IVVN terms and conditions. Fellowships must start within 3 months of the date of the award letter (actual start date must be confirmed with the Network Manager but due to funding constraints, fellowships must commence no later than 1st December 2020), so it is advised that any contractual issues between the respective research organisations of the Mentor and Mentee are discussed prior to grant submission and resolved promptly upon award.

Unsuccessful applicants will be informed promptly and the Network Manager may pass on specific feedback, on request, if available.

Post-award Administration

The University of Edinburgh will issue a grant award letter with terms and conditions attached to each of the successful research organisations of the Mentor and Mentee (together “the awardees”).

Projects may not start until the awardees have signed and returned their respective award letters to the Network Manager.

Before a project can start, it must be considered whether an agreement between the respective research organisations of the Mentor and Mentee is required for the fellowship project. If required, such an agreement must be in place before the fellowship project starts.

Funds must be spent as detailed for both the research organisations of the Mentee and Mentor in the application. Awardees are required to submit scientific and financial reports at the end of the project. An invoice for 90% of the project costs for each of the research organisations of the Mentee and Mentor should be submitted on commencement of the project and an invoice in respect of the remaining 10% of the project costs for each of research organisations of the Mentee and Mentor should be submitted on completion of the project. **Payment will be for actual expenditure up to the value agreed in the original award letter only.**

The receipts must be kept by the awardees as they may be required for possible future audits. The awardees must follow standard accounting procedures for financial accounts. Any underspend on grants will be retained/reclaimed by the IVVN.

Awardees are encouraged to submit project results for publication in a peer-reviewed journal, or as a case-study. A non-confidential brief summary of the project's outcomes, taken from the final report submitted by the awardee, will be published on the IVVN website and in other relevant publicity. Awardees may be requested to provide details of the data generated by IVVN funds, if deemed necessary to validate the allocation and expenditure of IVVN funds.

Data Protection and Publicity

The Data Protection Laws gives individuals the rights to see personal data held about themselves by the University of Edinburgh.

The University complies with the requirements of Data Protection Laws with regard to the collection, storage, processing and disclosure of personal data and is committed to upholding the core data protection principles of the Data Protection Laws.

For further information regarding how the University of Edinburgh processes your personal data and how to exercise your rights, please see our privacy statement for the IVVN network at <https://www.intvetvaccnet.co.uk/catalyst-funding/privacy-statement>.

Successful projects, along with the awardees' names and details of both the Mentor and Mentee's respective research organisations, will be listed on the IVVN website and in other relevant publicity, with a non-confidential lay summary outlining the work proposed. The University of Edinburgh will use information provided in the application for processing the application, the grant award, and for payment, maintenance and review of the grant. Copies of applications will also be made available to the IVVN NMG and EAG who will use information provided for reviewing the proposal and post-award administration. The University of Edinburgh, through the IVVN, may choose to publish details of the awardees, fellowship titles and lay summaries of successful projects. IVVN funding is derived from two sources of funding. Firstly, from a MRC/BBSRC award, therefore to meet the RCUK obligations for public accountability and the dissemination of information, non-confidential details of those awards using the MRC/BBSRC funding may also be made available on the RCUK's websites and other publicly available databases, and in reports, documents and mailing lists. The MRC/BBSRC will use this information for research related activities, including but not limited to, statistical analysis in relation

to the evaluation of MRC/BBSRC funding, study of trends and policy and strategy studies. Recipients of awards using the MRC/BBSRC funding may be requested to attend and contribute to MRC/BBSRC events within relevant areas at the request of the MRC/BBSRC.

Secondly, from an award from the International Development Research Centre (IRDC), therefore to meet IRDC's funding obligations, non-confidential details of those awards using IRDC funding may also be made available on the IRDC website and other publicly available databases and in reports, documents and mailing lists.

The award letter issued by the University of Edinburgh will confirm the source of the funding.

Information Gathering

The Awardees must comply with the following principles which aim at protecting the security, dignity and privacy of every individual who, in the course of the research carried out under the project, will be requested to provide personal or commercially valuable information about her/himself or others ("subject of research"):

- (a) Before an individual becomes a subject to research s/he will be notified of
 - the aims, methods, anticipated benefits and potential hazards of the research;
 - her/his right to abstain from participation in the research and her/his right to terminate at any time her/his participation; and
 - the confidential nature of her/his replies and any limits on such confidentiality.

- (b) No individual shall become a subject of research unless s/he is given notice as provided in the above paragraph and provides a freely given consent that s/he agrees to participate. No pressure or inducement of any kind shall be applied to become a subject of research.
- (c) Subject only to limitations which subjects of research are notified of and consent to, the identity of individuals from whom information is obtained in the course of the project shall be kept strictly confidential. At the conclusion of the project, any information that reveals the identity of individuals who were subjects of research shall be destroyed unless the individual has consented otherwise in writing. No information revealing the identity of any such individual shall be included in the final report submitted to the University or in any communication or publication prepared in the course of, or as a result of, the project unless the individual concerned has consented in writing to its inclusion beforehand. Likewise, at the conclusion of the project, any information that reveals the identity of such individuals who were subjects of research shall be destroyed unless the individual concerned has consented in writing.
- (d) If children are involved in the project, special care shall be taken to ensure their participation is undertaken in accordance with high ethical standards. Therefore, in addition to (a) –(c) above being complied with, children are not allowed to participate unless:
 - their parents or guardians have been counselled with respect to the children's participation in accordance with (a) to (c) above; and
 - their parents or guardians have given their free, explicit, and informed consent of the children in the project.

Parents or guardians shall have the right to withdraw their children from the project at any time.

Use of Animals

IVVN supports the principles of the 3Rs (Replacement, Reduction and Refinement). Awardees are expected to abide by the core principles set out in the cross-funder guidance 'Responsibility in the use of animals in bioscience research: Expectations of the major research councils and charitable funding bodies' and RGC2 (Research Governance) of the RCUK Terms and Conditions.

<https://www.nc3rs.org.uk/responsibility-use-animals-bioscience-research>

<https://www.ukri.org/files/legacy/news/grant-fec-tcs-january-2018-v1-pdf/>

The provisions of the Animals (Scientific Procedures) Act 1986 must be observed. All IVVN awards made by the University of Edinburgh are made on the absolute condition that all work is regulated by relevant national legislation and that approval has been gained following appropriate ethical review and cost/benefit analysis of animal use. Documentation showing adherence to such laws, rules and regulations must be submitted to IVVN on request. No animal shall be used in any form in the project until the relevant approval for such research has been received and thereafter submitted to IVVN. In the final scientific report provided to the University of Edinburgh, the Awardees must describe how they complied with the ethical standards in carrying out the project.

When animals are purchased from commercial suppliers, in-country suppliers should be used wherever possible, to minimise the risk of suffering during transport.

All research involving non-human primates must comply with the NC3Rs Guidelines: Primate accommodation, care and use.

<https://www.nc3rs.org.uk/non-human-primate-accommodation-care-and-use>

Use of Human Samples or Data

For research taking place outside the UK, local national guidelines and international best practice must be followed. All legal requirements for the import/export of biological materials must be adhered to.

Where the project is funded using the award from BBSRC/MRC, then section A applies:

SECTION A

All research involving human participants should be undertaken in accordance with MRC policies and guidance available from <http://www.mrc.ac.uk/research/policies-and-guidance-for-researchers/#ethics>. These include:

- Good Research Practice (2012);
- Medical research involving adults who cannot consent (2007);
- Medical Research Involving Children (2004);
- Human Tissue and Biological Samples for Use in Research (2014);
- Personal Information in Medical Research (2000)

Independent Research Ethics Committee approval is required for research that involves human participants (whether patients or healthy volunteers) or records. Such approval is also required for certain studies of human tissues.

In the case of social science research, it is recommended that award holders follow the ESRC Framework for Research Ethics (revised 2015) which highlights the responsibility of the research organisation for ensuring that the research is subject to appropriate ethics review.

Research involving human participants in developing societies presents specific ethical challenges and the MRC guidelines Research Involving Human Participants in Developing Societies must be followed.

Awardees whose research involves the removal, use or storage of human tissue as specified in the relevant legislation must:

- comply with the appropriate legislation, i.e. the Human Tissue Act 2004 and/or the Human Tissue (Scotland) Act 2006;
- follow the relevant standards and Codes of Practice issued by the Human Tissue Authority (HTA) (the MRC Regulatory Support Centre has summarised these);
- follow the MRC guidance detailed in Human Tissue and Biological Samples for Use in medical Research (2014).

Where the project is funded using the award from IDRC, then section B applies:

SECTION B

All research which involves human subjects must be undertaken as follows:

- (i) the Awardees must comply with the *International Ethical Guidelines for Biomedical Research Involving Human Subjects* developed by the Council for International Organisation of Medical Sciences and the World Health Organisation. The Awardee must also ensure that no human subjects will be enrolled in any research activity until the necessary regulatory and ethical bodies' approvals are obtained and submitted to the University of Edinburgh;
- (ii) the Awardees shall submit the protocol for the Project to an appropriately constituted ethics review committee in their institutions or at the national level (in the country where the Project will be carried out) ;
- (iii) provide the University with a copy of the committee's written approval of the protocol.
- (iv) The Awardee shall take whatever steps to ensure: (a) that health care services that are essential to the safe conduct of research are available and accessible to the subjects of that research as necessary; and (b) that effective treatment is provided to those subjects of the research who react adversely to any aspect of the experimental procedure to which they have been subjected; and
- (v) The Awardees shall take all reasonable steps to ensure: (a) that the subjects of the research who are discovered to have health problems as a result of the research are referred to appropriate support and health care standard in the country in which they are resident; and (b) that beneficial interventions or products developed as a result of the research undertaken in the course of the project are made available to the subjects of the research who were involved in the project and who may benefit from them.

Projects involving Genetic Resources

The University of Edinburgh supports the objectives of the 1992 Convention on Biological Diversity and the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilisation. In particular, the University of Edinburgh promotes the fair and equitable sharing of the benefits arising from the use of genetic resources. Awardees must ensure that where there is use of genetic resources or dissemination of knowledge, including traditional knowledge, to which a person may claim moral or legal rights, the Awardees will not take steps that would prejudice such claims or diminish their value. The Awardees will obtain all necessary permits, consents, mutually

agreed terms and other associated documentation required in accordance with the access and benefit sharing legislation in place in the country of origin of the genetic resources. Where the use or dissemination of knowledge is envisioned, the awardee must ensure that the moral or legal rights of any potential claimants are respected, through consultation with them and compensation to them where available.

Genetically Modified Organisms (GMO)

National regulations and international best practice must be followed. Researchers who carry out genetic modification should be familiar with the legislative requirements and with the Scientific Advisory Committee on Genetic Modification (Contained Use) guidance (<http://webcommunities.hse.gov.uk/connect.ti/SACGM/grouphome>).

Dangerous Pathogens

Research organisations accommodating projects involving the use of dangerous pathogens must comply with the safeguards recommended by the UK Advisory Committee on Dangerous Pathogens in their guidance 'Infection at work: controlling the risk', 'Biological Agents: the principles, design and operation of containment in a level 4 facility' and 'Biological agents: Managing the risks in laboratories and healthcare premises', as well as local national regulations.

<http://www.hse.gov.uk/pubns/infection.pdf>

<http://www.hse.gov.uk/pubns/web09.pdf>

<http://www.hse.gov.uk/biosafety/biologagents.pdf>

Conflict of Interest

Examples of a conflict of interest include:

- Employed by the same research organisation as the applicant(s)
- Actively involved in research collaborations with the applicants(s)
- Working closely with the applicant(s), or the Principal Investigator or other investigator(s) for example as a co-author or PhD Supervisor, or has worked closely together in the last 4 years
- Holding a current position on the governing body of or an honorary position within the research organisation of the applicant(s)
- In receipt of personal remuneration in excess of £5000 per annum from the applicant's research organisation
- Personal/family relationship with the Principal Investigator or other investigators
- Hostile relationship with or direct competitor of the applicant or the Principal Investigator or other investigators.

Useful Resources

IVVN website: <http://intvetvaccnet.co.uk/>

UK Government information on ODA strategic objectives:

<https://www.gov.uk/government/collections/official-development-assistance-oda--2>

List of LMIC countries (all countries in this list are LMIC): http://www.oecd.org/dac/financing-sustainable-development/development-finance-standards/DAC_List_ODA_Recipients2018to2020_flows_En.pdf.