|  |  |
| --- | --- |
| **Q1 Applicant** | **Applicant** |
| **Q1** | | | **Clinical Fellow** |
| Surname | | | Williams |
| Forenames | | | Thomas Christie |
| Title (Dr etc.) | | | Dr |

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Sponsor** | **Sponsor** | **Sponsor** |
| Surname | Whyte | Walker |  |
| Forenames | Moira | Brian |  |
| Title (Dr etc.) | Professor | Professor |  |

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Supervisor** | **Supervisor** | **Supervisor** |
| Surname | Taylor | Jackson |  |
| Forenames | Martin | Andrew |  |
| Title (Dr etc.) | Dr | Professor |  |

|  |  |
| --- | --- |
| **Q2** | **Title of project**: |
| Are ribonucleotide fragments retained in mature replicated DNA? | |

|  |  |  |
| --- | --- | --- |
| **Q3** | **Department name and address of administering institution:** | |
| The Institute of Genetics and Molecular Medicine  University of Edinburgh  Western General Hospital  Crewe Road, Edinburgh EH4 2XU | | |
| **Q4** | **Proposed start date:** | 3rd August 2016 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Clinical Fellow** | |  |  | | |
| Name | Thomas Christie Williams |  | Telephone numbers: | |
|  |  |  |  |
| Contact address | 2/4 Sciennes Hill Place  Edinburgh EH9 1NP | Day |  |
|  |  |
| Mobile | 07910358778 |
|  |  |
| Fax. |  |
|  |  |
| email | Twillia2@exseed.ed.ac.uk |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Supervisor** | |  |  | | |
| Name | Martin Taylor |  | Telephone numbers: | |
|  |  |  |  |
| Contact address | The Institute of Genetics and Molecular Medicine  University of Edinburgh  Western General Hospital  Crewe Road  Edinburgh EH4 2XU | Day | 0131 651 8500 |
|  |  |
| Mobile |  |
|  |  |
| Fax. |  |
|  |  |
| email | martin.taylor@igmm.ed.ac.uk |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sponsor** | |  |  | | |
| Name | Professor Moira Whyte |  | Telephone numbers: | |
|  |  |  |  |
| Contact address | University of Edinburgh  Queen’s Medical Research  Institute  51 Little France Crescent  Edinburgh EH16 4TJ | Day |  |
|  |  |
| Mobile |  |
|  |  |
| Fax. |  |
|  |  |
| email |  |

**Q5 BACKGROUND TO APPLICATION TO PROGRAMME**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Please indicate why you wish to undertake a research training fellowship and how this will further your career. Also, what scientific considerations led you to choose this laboratory and supervisor for your research? If you have already been based in this laboratory for a year or more, please specify your reasons for remaining (no more than 1000 words). | | |
|  |  |  |  |
| Career aims  Choice of laboratory and supervisors | | | |

Publications

Please list all publications, including original research publications and other scholarly contributions. Publications should be in chronological order with the most recent first. **Please give citation in full, including title of paper and all authors.**

**Williams TC**, Nair H, Simpson J and Embleton N. (2016) Use of donor human milk and maternal breast feeding rates: a systematic review. *Journal of Human Lactation* Feb 17. pii: 0890334416632203. [Epub ahead of print]

**Williams TC** and Drake AJ. (2015) What a general paediatrician needs to know about early life programming. *Archives of disease in childhood. Arch Dis Child*2015;**100**:1058 1063  doi:10.1136/archdischild-2014-307958

**Williams TC**, Wilkinson AG, Kandasamy J, Cooper S and Boardman JP. (2015) Antenatal diagnosis of intracranial haemorrhage and porencephalic cyst. *BMJ Case Reports* Feb 25;2015. pii: bcr2014209130. doi: 10.1136/bcr-2014-209130

Geldsetzer P, **Williams TC**, Kirolos A, Mitchell S, Ratcliffe LA, *et al.*(2014) The Recognition of and Care Seeking Behaviour for Childhood Illness in Developing Countries: A Systematic Review. *PLoS ONE*  9(4): e93427. doi:10.1371/journal.pone.0093427

**Williams TC**. (2013) Symposium Report: Global health: paradigms, progress, priorities and partnerships.

Report for the Journal of the Royal College of Physicians of Edinburgh. <http://www.rcpe.ac.uk/sites/default/files/global_health_2013.pdf>

Menon G and **Williams TC.** (2013) Human milk for preterm infants: why, what, when and how?

*Archives of disease in childhood. Fetal and neonatal edition*, 2013 98(6) F559–62. doi:10.1136/archdischild-2012-303582.

**Williams TC**, Kalima P and Jones L. (2012) Case series of children in a UK hospital infected with Panton-Valentine Leucocidin positive Staphylococcus aureus: further features of an emerging infection. *Arch Dis Child* ;97:A37 doi:10.1136/archdischild-2012-301885.92

**Williams TC**. (2007) Apraxia and Material Culture. *Cambridge Medicine*; 21 55-58

|  |  |
| --- | --- |
| **Q6** | **CLINICAL STATUS** |

SECTIONS 8(a) – (l) MUST BE COMPLETED BY ALL APPLICANTS WHO ARE MEDICAL OR DENTAL GRADUATES

|  |  |  |  |
| --- | --- | --- | --- |
| (a) | What level of clinical contract do you currently hold? If ‘Other’, please specify. | Honorary Specialty Trainee 5 | |
|  |  | |  |
| (b) | Name of Health Authority or Hospital Trust: | Lothian University Hospitals NHS Trust | |
|  |  | |  |
| (c) | Date current contract expires: | 02/08/2016 | |
|  |  | |  |
| (d) | Please state your chosen clinical specialty, if known: | Paediatrics | |
|  |  | | |
| (e) | What progress, if any, has been made towards accreditation in your chosen specialty? | | |
|  |  | | |
|  | Completion of 4 and ¾ years specialty training in Paediatrics. | | |

|  |  |  |  |
| --- | --- | --- | --- |
| (f) |  | Please give your General Medical Council (GMC) number: | 7045853 |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| (g) | i) | | | | Do you hold a National Training Number (NTN)? | | | | Yes |
|  |  | | | |  | | | |  |
|  | ii) | | | | If yes, state NTN and date awarded: | | | | SES  August 2011 |
|  |  | | | |  | | | |  |
|  | iii) | | | | If no, when do you intend to apply for a NTN? | | | | N/A |
|  |  | | | |  | | | |  |
|  | iv) | | | | In which postgraduate deanery is your NTN held, or will be held? | | | | N/A |
|  |  | | | |  | | | |  |
| (h) | i) | | | | Do you hold a Certificate of Completion of Training (CCT)? | | | | No |
|  |  | | | |  | | | |  |
|  | ii) | | | | If yes, state date awarded: | | | | N/A |
|  |  | | | |  | | | |  |
|  | iii) | | | | If no, what date would you expect to qualify to receive your CCT, assuming your fellowship application is successful? (mm/yy) | | | | May 2022 |
|  |  | | | |  | | | |  |
| (i) | What level of honorary clinical contract will be sought during this award? If ‘Other’, please specify. | | | | | | | | StR paypoint XXXX |
|  |  | | | |  | | | | |
| (j) | i) | | | | Please state the clinical duties that are essential for the proposed research and the time required each week to perform these duties: | | | | |
|  |  | | | | |  |  | | |
| Nil. | | | | | | | | | |
|  |  | | | | |  | |  | |
| (k) | ii) | | | | Please state what clinical duties are essential for the minimum requirements for higher training in your specialty, and how you intend to meet them: | | | | |
|  |  | |  | | | | |  | |
| Nil. | | | | | | | | | |
|  | |  |  | | | | | | |
| (l) | | iii) | | Please state the total time you intend to spend each week on clinical work, including (i) i) and (i) ii) above: | | | | | |
|  | |  |  | | | | | | |
| 1 session per month. | | | | | | | | | |

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|  | SECTION 8 (m) MUST BE COMPLETED BY ALL APPLICANTS WHO ARE VETERINARY GRADUATES | | |
| (m) | i) | Do you hold a Royal College of Veterinary Surgeons (RCVS) Certificate or equivalent? |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | ii) | Certificate title: |  | |
|  |  |  | |  |
|  | iii) | Year awarded: | |  |

|  |  |  |  |  |
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|  | iv) | Do you hold a Royal College of Veterinary Surgeons (RCVS) Diploma or equivalent? | |  |
|  |  |  | |  |
|  | v) | Diploma title: |  | |

|  |  |  |  |
| --- | --- | --- | --- |
|  | vi) | Year awarded: |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Q7** | | **OTHER RESEARCH SUPPORT HELD** | | | | |
|  | | Research grants (to include Academic Clinical Fellowships etc) held in the last five years and any key prior grants (list the most recent first).  Please state the name of the awarding body, title of project, amounts awarded and start and end dates of support. For all current grants, indicate the number of hours per week that are spent on each project. | | | | |
|  |  | |  |  |  | |
|  | | None. | | | | |
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| **Q8** | **SUPERVISOR, SPONSOR AND APPLICANT PARTNERSHIP** |
|  | Please describe how this supervisor, sponsor and applicant partnership came about and how the project was written, and by whom (no more than 150 words). |
| I applied to the Edinburgh Clinical Academic Scheme as I wanted to integrate a block of substantial scientific training into my clinical training. With my background in Human Evolution I sought out someone working in evolutionary genomics, and was introduced to Martin Taylor’s lab.  Wanting to ground hypothesis generating bioinformatic work in a tractable laboratory project, I investigated the laboratories that Dr. Taylor had collaborated with in his previous work. Dr. Taylor has previously collaborated with Professor Andrew Jackson’s group, and I thought a joint project would allow me to acquire bench skills in a laboratory that was conducting fundamental scientific research at a high level and had collaborated successfully in the past, as evidenced by a number of recent publication in high impact journals.  The project was written in conjunction with Dr. Taylor, Professor Jackson and Dr. Reijns. | |

|  |  |
| --- | --- |
| **Q9** | **RESEARCH TRAINING** |
|  | Please outline the research training proposed including dates and locations of training. Please highlight how the current research within the laboratory will fit in with that proposed for the fellow, and include the techniques and skills to be acquired. (No more than 700 words) |
| 2016-2020: PhD at the Institute for Genetics and Molecular Medicine.  Year 1: August 2016- July 2017. During my initial period of training I will learn about tools and methods used to analyse the large datasets generated by genomic technologies. I have already completed an introductory course in Python for biologists, and will follow this up with an advance Python course in XXXX. I have commenced an online course run by Johns Hopkins University on the statistical programming package R, and will follow this up with specific training courses on the use of R for bioinformatic data run by XXXX.  Year 2: August 2017- July 2018. Having acquired skills in data analysis and interpretation using genomic data generated by Dr. Martin Reijns in *S. cerevisiae* , I will learn about yeast cell culture and the creation of mutant strains. I will learn how to perform EmRiboSeq.  Year 3: July 2018 – completion. Application of bioinformatic and laboratory methods to elucidating the retention of Okazaki fragments in mature replicated. DNA. | |

|  |  |  |
| --- | --- | --- |
| **Q10** | **SUMMARY OF PROPOSED RESEARCH INCLUDING KEY GOALS** | |
| (a) | For scientifically qualified assessors: (no more than 200 words) |  |
|  | | |
|  |  | |
| (b) | For lay readers: (no more than 200 words) | |
|  | | |

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| **Q11** | **DETAILS OF RESEARCH PROJECT** (no more than 1400 words) |
|  | Indicate what your research question is, and why it is important. Detail (a) Aims of the project, (b) Work which has led up to the project, (c) Timetable and milestones, (d) What key methodologies and techniques will the fellow use to achieve the aims of the project . **For clinical trials, refer to guidelines.**  Graphs, figures and supporting unpublished data may be embedded in the text or included as an appendix or appendices. These additional data must not exceed the equivalent of 2 A4 pages in length. |
|  |  |

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| **Q12** | **REFERENCES** (Research project)  Please give citation in full, including title of paper and all authors. |

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| --- | --- | --- | --- |
| **Q13** | **DATA MANAGEMENT & DATA SHARING** (no more than 1500 words) | | |
|  | | | Where appropriate, detail (a) your plans for data management, curation and storage; (b) your policy for sharing data with others, including the management and prioritisation of access to data; (c) your strategy for current and future communication with user communities; and (d) any ethical considerations. | |
|  | | |  | |
|  | | | | |
| **Q14** | | **OUTLINE OF PUBLIC ENGAGEMENT PLANS** (no more than 250 words) | | |
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Please note that we provide support for researchers in the UK and Republic of Ireland to engage with the lay public. Do you wish to receive information about training, funding and other public engagement opportunities?

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| **Q15** | **WORK ABROAD**  This section must be completed by applicants proposing to work abroad for part of their fellowship. The section may be duplicated if more than one institution is to be visited. | |
|  |  |  |
| (a) | Name and address of host overseas institution: |  |
|  | | |
| (b) | Dates of travel and duration of trip(s) | |
|  |  | |
| (c) | Details of accompanying dependant(s) | |
|  |  | |
| (d) | Purpose of the visit(s) (no more than 100 words) | |
|  |  | |
| (e) | Recommendation by sponsor/supervisor in host overseas institution (no more than 300 words) | |
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| Full name: |  | Position: |  |

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| **Q16** | **DETAILS OF FINANCIAL SUPPORT AND RESOURCES REQUESTED** | |
|  |  | |
| **(A) Animals** | | | |
| Total purchase cost | |  | |
| Total maintenance cost | |  | |
| Total procedures cost | |  | |
| Total associated cost | |  | |
| **Subtotal** | |  | |

The table below should be duplicated for **each different species.**

|  |  |  |
| --- | --- | --- |
|  | | |
| **(i)** | **Animal species to be used, and strain if relevant** |  |
|  | |  |
| **(ii)** | **Source of supply** |  |
|  | | |
| **(iii)** | **Purchase** | |
|  | Purchase price per animal |  |
|  | Total number of animals to be purchased |  |
|  | **Total purchase cost** |  |
|  | |  |
| **(iv)** | **Maintenance** | |
|  | Total number of animals to be maintained |  |
|  | Total number of weeks’ maintenance required |  |
|  | Cost per animal per week |  |
|  | **Total maintenance cost** |  |
|  | |  |
| **(v)** | **Experimental procedures** | |
|  | Types of procedure(s) |  |
|  | Cost per procedure(s) |  |
|  | **Total procedures cost** |  |

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| **(vi)** | **Associated costs** | |
|  | Staff training costs |  |
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|  | **Total staff training costs** |  |
|  | Animal environment, training and enrichment costs |  |
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|  | **Total animal environment, training and enrichment costs** |  |
|  | Animal licence costs |  |
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|  |  |  |
|  | **Total animal licence costs** |  |
|  | **Total associated cost** |  |

|  |  |
| --- | --- |
| **Q16** | **Details of FINANCIAL SUPPORT AND RESOURCES REQUESTED** (cont.) |
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| --- | --- |
| **(B) Research expenses *(Tropical Programmes Only)*** | **Costs** |
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| **Subtotal** |  |

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| **(C) Work abroad** |  |
| (i) Airfare(s) of Applicant and any accompanying partner/spouse |  |
| (ii) Airfare(s) of any accompanying dependent children |  |
| (iii) Subsistence/overseas allowances (detail below) |  |
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| **Subtotal** |  |

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| **Q17** | **Access to radiation sources** | |  |  |  |  |
| **(a)** | **Synchrotron Radiation Sources** | |  |  |  |  |
| (i) | Will the proposed research require access to a synchrotron radiation source (SRS)? | |  |  | | |
|  |
| (ii) | Please specify to which source(s) you will be applying |  | | | | |
|  |  | | | | | |
|  | | | | | | |
| **(b)** | **Neutron Sources** | |
| (i) | Will the proposed research require access to a neutron source? | |  |  | | |

|  |  |  |  |
| --- | --- | --- | --- |
| (ii) | Are you requesting costs from the Wellcome Trust? |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| (iii) | If yes, complete table below (anticipated usage must be specified in whole days) and Q28 (d)(iii) Access Charges, detailing the costs required. |  |  |
|  |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Details of neutron source | Total number of days | Number of days per annum | | | | |
| Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
|  |  |  |  |  |  |  |
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|  |  |  |  |  |  |  |
| **Total** |  |  |  |  |  |  |

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| --- | --- |
| (iv) | Please justify your proposed access to the neutron source, including the number of days requested (no more than 500 words). |
|  |  |

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| **Q18** | **REASONS FOR SUPPORT REQUESTED** |
|  | In this section, justify: |
| (A) | Animals (numbers and species) (no more than 300 words) |
|  |  |
|  |  |
| (B) | Miscellaneous costs (no more than 300 words) |
|  |  |

|  |  |
| --- | --- |
| (C) | Work abroad (no more than 300 words) |
|  |  |

|  |  |  |
| --- | --- | --- |
| **Q19** | **RESEARCH INVOLVING HUMAN PARTICIPANTS, BIOLOGICAL SAMPLES AND PERSONAL DATA RELATING TO LIVING OR DEAD PERSONS** | |
|  |  |  |
| (a) | Does your project involve human participants? |  |
|  | If yes, refer to notes. | |
|  |  | |
| (b) | Will personal data be used? |  |
|  |  |  |
| (c) | Will your project involve use of biological samples? |  |

|  |  |  |
| --- | --- | --- |
| (d) | Please state: |  |
| (i) | By whom and when the ethics of the project has been reviewed, and specify any other regulatory approvals that have been obtained. |  |
|  |  | |
|  | And/or: |  |
| (ii) | By whom and when the ethics of the project will be reviewed, and specify any other regulatory approvals that will be sought. |  |
|  |  | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| (e) | In the course of your project: | | | |
| (i) | Do you propose to use facilities within the National Health Service (NHS)? | |  | |
|  |  | |  | |
| (ii) | Does your research involve patients being cared for by the NHS? | |  | |
|  |  | |  | |
| (iii) | If the answer is yes to (i) or (ii) above, please indicate which organisation has agreed to be the sponsor for the project under the Research Governance Framework for Health and Social Care, published by the Department of Health in England or the corresponding departments in Northern Ireland, Scotland or Wales.  Please note that the Wellcome Trust cannot act as sponsor. | | | |
|  |  | | | |
|  |  |  | | |
| (f) | If your project involves a clinical trial: | | | |
| (i) | Please state whether it is covered by The Medicines for Human Use (Clinical Trials) Regulations. | | |  |
|  |
|  |  | | |  |
| (ii) | Please indicate which organisation has agreed to be the sponsor for the project.  Please note that the Wellcome Trust cannot act as sponsor. | | | |
|  |  | | | |

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| --- | --- | --- |
| **Q20** | **EXPERIMENTS ON ANIMALS** | |
|  | |  |
| (a) | Do your proposals involve the use of animals? |  |
|  | |  |
| (b) | Do your proposals involve the use of animal tissue? |  |
|  | |  |
| (c) | Do your proposals include procedures to be carried out on animals in the UK which require a Home Office licence?  If yes, refer to notes. |  |
|  |
|  | |  |
| (d) | Does the institution where the animal work is to be carried out hold a certificate of designation under the Animals (Scientific Procedures) Act 1986? |  |
|  |
|  | |  |
| (e) | Do your proposals involve the use of animals or animal tissue outside the UK?  If yes, refer to notes. |  |
|  |
|  | |  |
| (f) | If your project does involve the use of animals, what would be the severity of the procedures? |  |
|  | | |
| (g) | Please provide details of any procedures of substantial or moderate severity (no more than 250 words). | |
|  |  | |
|  |  | |
| (h) | Why is animal use necessary: are there any other possible approaches? (no more than 250 words) | |
|  |  | |
|  |  | |

(i) Will the following species to be used?

|  |  |
| --- | --- |
|  |  |
| (j) | |  |  | | --- | --- | | Primate |  |  |  |  | | --- | --- | | Cat |  |  |  |  | | --- | --- | | Dog |  |  |  |  | | --- | --- | | Equidae |  |  |  |  | | --- | --- | | Genetically Altered Animals |  |  |  |  | | --- | --- | | Other animals |  |   Why is the species to be used the most appropriate? (no more than 250 words) |
|  |  |

|  |  |  |
| --- | --- | --- |
| (k) | Primates | |
| (i) | Do you expect facilities and practices, and the proposed research will comply with the principles set out in the 'National Centre for the Replacement, Refinement and Reduction of Animals in Research (NC3Rs) Guidelines: Primate accommodation, care and use' (<http://www.nc3rs.org.uk/downloaddoc.asp?id=418>)? | |
|  |  |

If not, please explain why.

|  |  |  |
| --- | --- | --- |
|  |  | |
|  |  | |
| (ii) | Will it be necessary to transport the non-human primates (i.e from breeding facility and within the host institution environment)? | |
|  |  |

If so, indicate approximate journey times and the measures that will be taken to minimise the potential stress during transport.

|  |  |  |  |
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|  |  | | |
| (iii) | Will single housing of the non-human primates be necessary at any time? | | |
|  |  |

If so, please provide details in terms of the justification for single housing, its duration, and what additional resources will be provided to the animals to minimise the impact on animal welfare.

|  |  |  |  |
| --- | --- | --- | --- |
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| (iv) | Describe the experimental procedures involved and how any pain, suffering, distress and/or lasting harm will be minimised. Have the procedures been recently reviewed by the Named Veterinary Surgeon (NVS), Named Animal Care and Welfare Officer (NACWO) and ethical review process (ERP)? | | |
|  |  |

|  |  |  |
| --- | --- | --- |
| (v) | Will any of the experimental procedures involve food and/or water restriction? | |
|  |  |

If so, justify why this is necessary and outline what alternatives have been considered.

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| (vi) | Will any of the experimental procedures involve restraint? | |
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What alternatives have been considered? Describe the nature of the restraint, its duration and frequency, and what will be done to avoid distress?

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| (vii) | | What prior experience and training in non-human primate use, care and welfare have the staff named in the application had? What provision is made for continuing professional development in these areas? | | |
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| (viii) | | Will any of the staff involved require specific training for any of the procedures concerned? | | |
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Please provide details of the training needed and where it will be undertaken.

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Specific questions for Cats and Dogs

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| (l) | Cats and Dogs | |
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| (i) | From where will the animals be sourced? | |
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| (ii) | Will it be necessary to transport the animals? | |
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If so, indicate approximate journey times and the measure that will be taken to minimise the potential stress during transport.

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| (iii) | Are animals to be imported? | | |
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Where animals are to be imported, what journey times have been agreed with the Home Office? Describe the conditions for the animals at the breeding establishment and how the potential stress during transport will be minimised.

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| (iv) | Please provide details of the housing for the animals, e.g. enclosure size, environmental enrichment. | |
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| (v) | Will single housing of the animals be necessary at any time? | |
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If so, please provide details in terms of the justification for single housing, its duration, and what additional resources will be provided to the animals to minimise the impact of the single housing.

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| (vi) | Describe the experimental procedures involved and how any pain, suffering, distress and/or lasting harm will be minimised. Have the procedures been recently reviewed by the Named Veterinary Surgeon (NVS), Named Animal Care and Welfare Officer (NACWO) and ethical review process (ERP)? | | |
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| (vii) | Will any of the experimental procedures involve restraint? | | |
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What alternatives have been considered? Describe the nature of the restraint, its duration and frequency, and what will be done to avoid distress?

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| (viii) | What prior experience and training in animal use, care and welfare will be required of the staff named in the application? What provision is made for continuing professional development in these areas? | | |
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| (ivx) | Will any of the staff involved require specific training for any of the procedures concerned? | | |
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Please provide details of the training needed and where it will be undertaken.

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| **Q21** | **risks of research misuse** | | |  | |
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| (a) | | It is the responsibility of institutions in receipt of Wellcome Trust funding to ensure that any risks that research could be misused for harmful purposes are managed in an appropriate manner. | | | |
| Please confirm that you have considered whether your proposed research could generate outcomes that could be misused for harmful purposes. | |  | |
|  | |  |  | | |
| (b) | | If you have identified any tangible risks of this type, please briefly describe these risks and the steps that you and your institution will take to manage them (no more than 250 words). | | | |
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| **Q22** | | **LOCATION OF RESEARCH** | | |  |
| (a) | | Will the research project be undertaken in a Wellcome Trust Clinical Research Facility? | | |  |
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|  | | If yes, please specify: |  | | |
|  | |  | | |  |
| (b) | | Will the research project be undertaken in the Wellcome Trust Sanger Institute or a Wellcome Trust Centre? | | |  |
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|  | | If yes, please specify: |  | | |
| **Please provide a letter of support from the Director of the Centre/Clinical Research Facility specified.** | | | | | |
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| **Q23** | | **CONSULTANCIES, EQUITIES AND DIRECTORSHIPS** | | |  |
| Do any of the applicants have consultancies or any equity holdings in, or directorships of, companies or other organisations that might have an interest in the results of the proposed research? | | | | |  |
| If yes, give brief details (no more than 200 words). | | | | |  |
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| **Q24** | | **COMMERCIAL EXPLOITATION** | | |  |
| (a) | | Will the proposed research use technology, materials or other invention that, as far as you are aware, are subject to any patents or other form of intellectual property protection? | | |  |
|  | | If yes, give brief details (no more than 200 words). | | |  |
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| (b) | | Is the proposed research, in whole or in part, subject to any agreements with commercial, academic or other organisations? | | |  |
|  | | If yes, give brief details (no more than 200 words). | | |  |
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| (c) | | Is the proposed research likely to lead to any patentable or commercially exploitable results? | | |  |
|  | | If yes, give brief details (no more than 200 words). | | |  |
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| (d) | | If any potentially commercially exploitable results may be based upon tissues or samples derived from human participants, please confirm that there has been appropriate informed consent for such use. | | | |
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**Q25 COLLABORATION**

Collaborators, i.e. scientific/medical/academic colleagues, who are associated with a research proposal and named in the body of the application, but are not coapplicants, are asked to complete this form.

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| Name of collaborator: |  |
|  |  |
| Full address: |  |
|  |  |
| Extent and nature of collaboration: |  |
| Detail the role and contribution of the collaborator, with an indication of the time the collaborator will spend on the project (no more than 200 words). |  |
|  |  |
| For biomedical research projects only: detail any reagents the collaborator will provide. Please indicate if there are any Intellectual Property issues or restrictions arising from Material Transfer Agreements (no more than 200 words). |  |