

NC3Rs Studentship Scheme Applicant guidance



NC3Rs Studentship Scheme - Applicant guidance

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1. Overview

The National Centre for the Replacement, Refinement and Reduction of Animals in Research (NC3Rs) funds multidisciplinary research to provide 3Rs models, tools and technologies that scientists in academia and industry can use to answer important questions to generate new knowledge, improve human and animal health and protect the environment.

Through <u>our funding schemes</u> our goal is to provide 3Rs models, tools and technologies that are well-characterised and ready for deployment, and importantly are better than existing approaches in terms of their predictivity, reliability, reproducibility, cost and impact on animal welfare. Our funding schemes provide opportunities for scientists at all career stages to engage with 3Rs research and training.

This document provides guidance to prospective applicants applying to the PhD Studentships scheme.

1.1 The 3Rs

The <u>principles of the 3Rs</u> (Replacement, Reduction and Refinement) were developed over 50 years ago providing a framework for performing more humane animal research. Since then, they have been embedded in national and international legislation and regulations on the use of animals in scientific procedures, as well as in the policies of organisations that fund or conduct animal research.

All submitted applications must focus on advancing the 3Rs. Panel members are asked to assess both the quality of the science and the likely 3Rs impact should the proposed research be successful.

There is some variation of the exact interpretation of the 3Rs. The NC3Rs has updated the definitions in line with common scientific parlance to highlight the importance of the 3Rs to modern research practices.

Table 1: Definitions of the 3Rs

3Rs	Basic	Updated
Replacement	Avoiding or replacing the use of animals in areas where they otherwise would have been used.	Accelerating the development and use of predictive and robust models and tools, based on the latest science and technologies, to address important scientific questions without the use of animals.
Reduction	Minimising the number of animals used consistent with scientific aims.	Appropriately designed and analysed animal experiments that are robust and reproducible, and truly add to the knowledge base.
Refinement	Minimising the pain, suffering, distress or lasting harm that research animals might experience.	Advancing research animal welfare by exploiting the latest <i>in vivo</i> technologies and by improving understanding of the impact of welfare on scientific outcomes.

1.2 Scheme overview and remit

The NC3Rs PhD Studentship Scheme aims to embed the 3Rs in training graduate scientists from a broad range of scientific backgrounds. We recognise the importance of developing a scientific workforce with expertise and skills in non-animal technologies, and are committed to supporting this through our PhD Studentships Scheme.

Non-animal technologies include complex 3D tissue models, organ-on-chips/ microphysiological systems, stem cell platforms, and *in silicol* computational tools. These technologies provide an alternative and often improved option to the use of animal models in terms of cost and physiological relevance. They also offer advanced solutions for modelling human and animal biology and predicting interactions to external challenge.

Applications to the PhD Studentship scheme must be focused on non-animal technologies to be within remit. The remit of the scheme includes:

- the initial development of non-animal technologies,
- their characterisation to demonstrate that they are fit-for-purpose, and
- sharing across the wider community to encourage uptake into routine practice.

Applications that integrate a range of disciplines or include an industrial partner are particularly encouraged.

1.2.1 BHF-NC3Rs Joint PhD Studentship awards

As part of our continued collaboration, up to two additional three-year joint awards with values of £100k (non-FEC), are available with the British Heart Foundation (BHF). Applications should seek to achieve 3Rs impact in the field of cardiovascular research with replacement, reduction and/or refinement approaches within remit for the NC3Rs-BHF awards.

These awards are subject to <u>joint NC3Rs-BHF terms and conditions</u>. Additional information on BHF's Intellectual Property and Commercial Exploitation terms can be found in section 5 of the <u>BHF Standard Conditions of Grant</u>.

Table 2: Overview of the PhD Studentship Scheme

Scheme at a glance

- The NC3Rs PhD Studentship Scheme aims to embed the 3Rs in training graduate scientists from a broad range of scientific backgrounds.
- Applications may be three or four years in duration.
- A four-year Studentship must not follow a 1+3 model and should be a stand-alone project for the duration.
- No period within the project duration should be solely used for thesis writing.
- Awards are cash limited to £100k for three-year awards and £135k for four-year awards (non-FEC).
- Studentship funding competitions are run annually. Key dates include:
 - Informal outline deadline April

- Full application deadline July
- Applicants informed of outcome October
- Awards must start by 1 October following award acceptance.
- The NC3Rs does not permit resubmissions, please see section 2.1.3 for more information.

Individual eligibility

- Applicants should be UK-based researchers with a minimum of five years' postdoctoral experience.
- A minimum of **two** supervisors should be included on an application.
- Applicants with limited supervisory experience are encouraged to name a more experienced colleague as a co-applicant(s).
- The lead applicant must have a contract of employment with the RO that will outlast the duration of the proposed application.
- If an NC3Rs grant holder has more than 12 months remaining on their NC3Rs grant, at the time of application, they are not permitted to apply as a Primary Investigator for further NC3Rs funding (excluding CRACK IT and Skills and Knowledge Transfer grants please contact the Office to discuss).
- Researchers based in industrial and overseas organisations are not eligible to be Primary or coapplicants, but they may be named project partners or collaborators.
- A proposal may integrate two disciplines or departments; however, applicants must ensure training content remains coherent and focused on delivering a specific set of research skills.

Establishment eligibility

- Supervisors from any UK research establishment can apply, including:
 - Higher Education Institutes (HEIs).
 - Independent Research Organisations (IROs).
 - Research Council (RC) Institutes.
- The research organisation is responsible for student recruitment and the administration of each Studentship during the award.

2. The application process

2.1 How to apply

2.1.1 Outline application

Before submitting a full application, applicants are required to complete an outline of the research proposal and email it to the NC3Rs Office. At outline stage, Studentship applicants must provide the Office with:

- a completed <u>outline form</u>.
- a letter of support from the Head of Department.
- CVs of the proposed supervisory team (to include supervisory experience and not to exceed three sides of A4).

Outline applications are assessed for applicant eligibility and fit to remit. Successful applicants will be invited to submit a full proposal by the Office.

2.1.2 Full application

Full applications to the NC3Rs Studentship scheme are made through the <u>UKRI Funding Service</u>.

For assistance with using the Funding Service, please contact support@funding-service.ukri.org or call the UKRI Funding Service Helpline: +44 (0)1793 547 490.

Please note: Once all the details of your application are complete you must submit it to your administering authority for approval; this is done via the Funding Service. This enables institutional checks to be carried out before final submission to the NC3Rs. Please allow appropriate time (a minimum of **5 working days**) before the submission deadline for this process as late applications will not be accepted.

2.1.3 Resubmissions

The NC3Rs does not allow resubmission of previously unsuccessful proposals, unless explicitly invited by the Panel. Proposals identified as uninvited resubmissions will not be processed.

Where a resubmission is invited, a cover letter summarising the major revisions must accompany the proposal. Please note that our willingness to accept a revised proposal in no way implies that funding will be forthcoming.

Proposals previously declined by the NC3Rs will not be considered by a Research Council within 12 months (from the date of submission) unless substantially revised. Please note this time restriction does not apply to outline applications.

Our resubmissions policy is part of a suite of demand management measures, to help alleviate pressure on all involved in the assessment process.

The NC3Rs reserves the right to amend the application procedure.

3. The application form

This section contains guidance on how to complete the application form on the UKRI Funding Service. Subsections are named as they appear in the application form.

3.1 Core Team

This section should include the roles that applicants have as the core team delivering the proposal. A minimum of two applicants are required to form the proposed supervisory team, both members must have a minimum of five years' postdoctoral experience. Where a proposal is multidisciplinary, it may be necessary to include further members of the supervisory team.

One applicant must be designated as the Project lead, the second and any further applicants should be included as Project co-lead/s (UK). Where an individual does not meet the minimum five year's postdoctoral experience level but has significantly contributed to the proposal development and will be involved with the project, they should be included as a Researcher co-lead.

Each application must include:

 Project lead - Responsible for the intellectual leadership and overall management of the project (affiliated with the lead organisation)

AND

 Project co-lead (UK) - Assists with project leadership and management, and may take over the leadership of the project if required (affiliated with lead or one of the collaborating organisations)

OPTIONAL

- Additional Project co-lead (UK)
- Researcher co-lead A research and innovation associate who is not eligible to be a project lead or co-lead, but who has made a substantial contribution to the formulation and development of the application and will be closely involved with the project

3.2 Vision

The **Vision** section should include a summary of both the project's scientific and 3Rs aims. It should also demonstrate the proposed work:

- is of excellent quality and importance within or beyond the field(s) or area(s).
- has the potential to advance current understanding, generate new knowledge, thinking or discovery within or beyond the field or area of research. Include sufficient details of other past and current research to show that the aims are scientifically justified, and to show that the proposed model, tool or technology will add distinct value to the those currently used or in development by others.
- is timely given current trends, context and needs.
- impacts world-leading research, society, the economy or the environment.
- will replace, reduce and/or refine the use of animals in research or testing (see Section 1.1 for definitions of the 3Rs) and provide supporting 3Rs metrics.
- identify potential direct or indirect benefits and who the beneficiaries might be.

3.2.1 Writing a 3Rs case

It is important to effectively articulate the potential 3Rs impact of your proposed work, including providing realistic metrics, so the Panel can assess your application against others in the competition. Proposals are evaluated both on the quality of the science and the likely 3Rs impact should the proposed research be successful.

When writing your 3Rs case, consider the following questions:

- Why is this project important to the 3Rs?
- Which 'R' is the project targeting?
- Why is the 3Rs impact potential realistic and achievable?

This 3Rs case should include metrics on the potential 3Rs impact locally (i.e. within your own laboratory or institution) and more widely (nationally/internationally). It can be difficult to provide a specific estimate for 3Rs potential as it is not always straightforward to identify how many animals are used for a certain procedure/experiment/discipline, on a national/international scale. Nevertheless, your application should describe a reasonable estimate of the 3Rs potential and how you arrived at this figure.

A logical approach should be taken to estimating the 3Rs potential of your project and it is often useful to start locally from your own experiences and then extrapolate to the wider scientific community. What 3Rs impacts could be made in your own laboratory, in this project and in future projects, as a result of receiving NC3Rs funding? Could this be expanded to other researchers in your institution? Seek input from colleagues and researchers in relevant fields based on their experiences. Evidence based on laboratory or institutional usage can provide a starting point to make the impacts easier to quantify and build up the 3Rs rationale of the project.

We recommend considering the following questions:

- For replacement: describe the types of animal models and studies (and their level of severity on the animals) that could be replaced and the numbers of animals currently used for this purpose. What proportion of this use could be replaced if the proposal was successful, and how have you arrived at this estimate?
- **For reduction**: describe the current groups or number of animals that are used in a study and what this would be reduced to if the proposal were successful.
- For refinement: describe the nature and level of suffering the animals may experience, including the number of animals that experience this suffering, and how this would be minimised if the proposal was successful. Include evidence that animal suffering will be reduced, or animal welfare improved and describe the objective indicators that will be used to assess animal welfare. Consider whether the severity limit for the procedure or protocol is likely to be downgraded as a result of the proposed refinement technique and estimate how many animals are likely to benefit per year both locally and in the wider scientific community.

Applicants may also supplement their 3Rs case with information gathered from literature databases (such as PubMed). For example, to see how many papers are published each year reporting the use of the particular animal model and the typical number of animals used per experiment in the published papers. This can be a useful exercise in estimating potential global impact and should be used to **support** information from your own laboratory or institution, from collaborators and/or other end-users.

The NC3Rs publishes summaries of its funded grants on the NC3Rs website. Please ensure the Vision statement is suitable for web publication if an award is made.

For further guidance on how to clearly convey the potential 3Rs impact of your work, please use our resource: 'How to write effectively about the 3Rs in your grant application'. The word limit for the Vision section is **500 words**.

3.3 Approach

The **Approach** section should describe how you will deliver the proposed project. It is not necessary to describe each experiment, but enough detail must be provided to show how and why the research is competitive in its field and that it has been carefully planned to produce useful and reliable results.

Explain how your designed approach:

- is effective and appropriate to achieve your objectives. Highlight plans that are particularly original or unique.
- is feasible, with any risks to delivery and management strategies comprehensively identified. Applicants are encouraged to include a Gantt chart or similar to demonstrate suitability of the project for a PhD Studentship.
- uses a clear and transparent methodology. Robust methodology and experimental design should be at the centre of any proposal to ensure the reliability of results. Applicants are required to provide additional information on the proposal's experimental design and methodology in an experimental design and methodology appendix or Experimental Design Assistant (EDA) report (please see section 3.4.1 of the guidance)
- if applicable, summarises previous work and describes how this will be built upon and progressed. If the project builds on previous NC3Rs funding, summarise the 3Rs impacts achieved to date.
- will achieve a 3Rs impact and be adopted by the wider scientific community. Clearly describe how 3Rs outputs will be shared with the wider scientific community to encourage and drive uptake, during the lifetime of your award and beyond (often termed the 3Rs legacy). Your dissemination plans should aim to achieve maximum 3Rs impact and be tailored to the 3Rs tool, method or technology. In some instances, it is useful to include letters of support from the research community as a measure of the need for, and interest in, adopting the 3Rs model, tool or technology. It may also be beneficial to describe other potential applications to further research areas. Consider any potential barriers to uptake (for example technological challenges, access issues, cost, competition or regulatory) and how these may be overcome.
- will maximise translation of outputs into outcomes and impacts. Consider how the model, tool or technology will be characterised or validated to show it is fit-for-purpose. You should identify who are the end-users for the new model, tool or technology and highlight any advantages (3Rs or scientific) of the model, tool or technology that could improve uptake.
- will benefit from your, and if applicable your team's, research environment (in terms of the place, its location, and relevance to the project). You should also demonstrate appropriate access to services, facilities, infrastructure, or equipment to deliver the proposal.

Additional considerations may include:

- If the 3Rs model, tool or technology is developed successfully, what characterisation or validation is needed to assess whether it is fit-for-purpose? What, if any, additional steps will be required before it can be implemented within routine research? Include any plans with an industrial partner, if applicable, and provide details of their involvement in the project.
- Is the proposed research likely to generate commercially exploitable results? What arrangements and experience does the research group, or the host institution, have to take this forward? Any plans must be realistic and credible, and appropriate industrial links included.

The word limit for the Approach section is 2000 words.

References: relevant scientific publications may be cited in the Vision and Approach sections of the application form. Numeric referencing style (in superscript) should be used within the body of the text and a complete list of citations included in the References section of the application form.

3.4 Attachments:

In addition, please upload the following documents as a **single** attachment:

- Mandatory either a single A4 page experimental design and methodology appendix OR a
 complete report generated from the Experimental Design Assistant (EDA). Please refer to section
 3.4.1 for further information.
- Mandatory a letter of support from your Head of Department. This should state the Host Organisation will:
 - Administer the award for the duration
 - Guarantee the doctoral student will have access to space and facilities to carry out the project.
 - Detail ongoing activities within the department that support 3Rs training.
- Optional letters of support from collaborators based in academia or industry who may be
 providing scientific expertise, resources and/or training, or who are interested in adopting the 3Rs
 model, tool or technology should be included in the attachments. Letters of support must:
 - Be dated, signed and on headed paper.
 - Should confirm the role the collaborator/industrial partner will have in the research including details of any expertise or resources that will be provided.

3.4.1 Experimental design and methodology

Applicants must include either an experimental design and methodology appendix (limited to **one** side of A4)

OR a complete report generated using the Experimental Design Assistant (EDA). The purpose of the appendix or EDA report is solely for the provision of information relating to the experimental design and methodology of the proposed research and **must not** be used as a continuation of the **Approach** section.

Applicants should not duplicate information presented elsewhere in the application. Where appropriate, the use of figures, tables and/or diagrams is encouraged. If submitting an EDA report, please note that the report describes a single experiment and only one report can be used per application. Please prioritise the main experiment or the experiment that uses the largest number of animals. The complete report must be included, and the tables and EDA diagram must not be altered on the PDF. If you need to update the EDA report, update the EDA diagram online and generate a new report.

Applicants are encouraged to seek input from those with the relevant statistical and/or methodological expertise to review their proposed experimental design and analysis plan.

Essential experimental design and methodology information to include:

Below is a summary of key points taken into consideration during the review of applications.

If your proposal includes the use of animals for validation purposes, please note this summary is not exhaustive.

In the appendix, applicants are required to clearly describe and justify the following:

- Primary and any secondary objectives of the study, or specific hypotheses being tested.
- Primary and secondary experimental outcomes to be assessed (e.g. cell death, molecular markers).
- The sex of the animals, humans, tissues or cells to be used in the study. If the sex cannot be determined, provide a justification for this. If using a single sex of animal, tissue or cells, provide a justification for why this is appropriate.
- Measures for avoidance of bias, for example masking (also known as blinding), randomisation (including how the sex of the animals, tissues or cells will be accounted for in the allocation to experimental groups), inclusion and exclusion criteria.
- Number of experimental and control groups and sample size per group, along with a clear definition of the experimental and biological units.
- How the sample size was calculated, showing power calculations and including justification for the effect size chosen.
- If power calculations are not appropriate, justify why a power calculation is not appropriate and provide a principled explanation of the choice of numbers. Explanations based solely in terms of 'usual practice' will be considered insufficient.
- Describe and justify the frequency of measurements/ interventions to be used.
- Describe the planned statistical analysis methods that will be used, explain how they relate to the
 experimental design (e.g. how analysis plans take sex and other factors into account) and show
 that they are appropriate for the types of data that will be collected.

Where the proposal includes the use of animals, we recommend using an EDA report in place of the Experimental design and methodology appendix. Please refer to the NC3Rs Experimental Design Assistant (EDA) (https://eda.nc3rs.org.uk) for guidance on experimental design and sample size calculation. The EDA captures methodological details about the experimental plan in the form of a diagram and provides tailored guidance and feedback on the design. It can then generate a PDF report which provides a transparent description of the design of the experiment in a standardised format.

Applications that do not provide sufficient detail to convince peer reviewers and Funding Panels that the proposed experiments will be carried out appropriately to produce robust and reproducible research will be rejected for funding on these grounds and subject to the usual limits on resubmission.

3.5 Data Management Plan

A Data Management Plan (DMP) developed using the <u>template</u> should accompany your application. The notes (*in italics*) provide further context and guidance for completion. Copy the completed table into the Data Management Plan section of the application form.

3.6 Applicant and team capability to deliver

In this section, applicants are required to provide a narrative in the format of the Résumé for Research and Innovation (R4RI). The purpose of the narrative is to showcase the skills and expertise of the proposed supervisory team, and any other collaborators and/ or project partners, and how this will help successfully deliver the proposed project.

In your R4RI statement, provide evidence of how you, and if relevant your team, have:

- the relevant experience (appropriate to career stage) to deliver the proposed work.
- the right balance of skills and expertise to cover the proposed work.
- the appropriate leadership and management skills to deliver the work and your approach to develop other people.
- contributed to developing the modern research environment and wider community.
- previous doctoral student supervisory experience and the ability to provide appropriate support for the student.
- identified the value any collaborator(s) bring to the development of the doctoral student and the delivery of the proposed work.
- where applicable, a track record in implementing the 3Rs in your research.

The word count for this section is **1500 words**, 1000 words to be used for R4RI modules and, if necessary, a further 500 words for Additions. Include a response for the whole supervisory team. You should consider how to balance your answer and, where appropriate, emphasise the key skills each team member brings. See the <u>UKRI guidance on R4RI</u> for further information. The five R4RI module headings are listed below:

- Contributions to the generation of new ideas, tools, methodologies, or knowledge
- The development of others and maintenance of effective working relationships
- Contributions to the wider research and innovation community
- Contributions to broader research or innovation users and audiences and towards wider societal benefit
- Additions Where relevant, we encourage applicants to use this section to provide any factors
 which may give context to your R4RI statement. For example, details of career breaks if you wish to
 disclose them it is not a requirement.

3.7 Resources

In this section, applicants are required to use the <u>resource template</u> to provide a breakdown of how the cash limited award will be allocated across the three headings outlined below. A justification of resources is not required. Once the resource table template has been completed, it should be copied into the Resource section on the application form.

All NC3Rs Studentship awards are made as cash limited awards. Three-year awards of £100k (non-FEC) or four-year awards of £135k (non-FEC) are available. Funds are paid directly to the Research Organisation over the course of the award.

Points to note:

- Student stipend this <u>must</u> meet the minimum level set out by UKRI. The amount may be increased using the funds provided by the NC3Rs, at your discretion, if you consider it will allow you to recruit the most suitable candidate.
- Tuition fees set by the host institution at which the degree will be registered.
- Research Training Support Grant (RTSG) All remaining funds should be allocated into this heading. The RTSG is intended for use in paying for expenses which the student's Supervisor/ department deem to be in direct support of a student's research, such as, but not limited to:
 - Laboratory consumables
 - UK and international conferences and summer schools (including the NC3Rs Studentship events and meetings)
 - Survey costs (e.g. printing, stationery, telephone calls etc.)
 - Purchase of small equipment items (e.g. cameras, tape recorders, films, cassettes or telephone and photocopying facilities in the department/faculty)

3.8 Ethics and Responsible Research and Innovation (RRI)

In this section, applicants are required to provide a description of the ethical or RRI implications and issues relating to the proposed work, and how these will be managed. If the proposed work does not raise any ethical or RRI issues, an explanation must be provided.

The word limit for this section is **500 words**.

Where applications involve the use of animals, applicants are also required to complete a series of relevant questions on the application form.

3.8.1 Animal research

For applications to this scheme, animal use is only permitted for the purpose of validation studies¹.

¹ Applications that fall under the BHF remit are permitted to use animals for purposes beyond validation studies.

Please provide details, including justification, if you are using animals as part of the Studentship proposal. If you are using cats, dogs, equidae and/or non-human primates, please contact the Office.

3.9 Training and Guidance

In this section, applicants are required to outline the training and guidance available to the doctoral student. There are two sub-questions that must be completed.

3.9.1 Training and guidance beyond the host institution's standard researcher development framework

Applicants must provide evidence that the doctoral student will receive scientific training, and opportunities to develop their transferable skills and knowledge base. The personal, professional and career development training available to the doctoral student must go above and beyond standard provisions at the host institution.

Within this section, applicants should identify:

- Training activities and/or courses available, for example science communication training.
- Mentorship opportunities.
- Where relevant, placement opportunities for example in industry or at an alternate Research Organisation (in the UK or overseas).

If training will take place at multiple locations and/or in multiple disciplines, applicants should explain how they will ensure that the doctoral student's training remains coherent and achievable.

The word count for this section is 300 words.

3.9.2 3Rs training plan

Applicants should provide a tailored 3Rs training plan for the doctoral student that goes beyond legal requirements and aims to develop a solid understanding of the 3Rs, including:

- How to implement the 3Rs in practice.
- 3Rs relevant learning, for example online NC3Rs resources, training in experimental design and reporting etc.
- Networking and/or dissemination opportunities for the doctoral student and their 3Rs model, tool or technology.

Examples of 3Rs-specific training activities include, but are not limited to:

- Engaging with the NC3Rs through relevant events, webinars and online resources.
- Attending 3Rs-relevant meetings/conferences.
- Encouraging discussion of the 3Rs by convening meetings.
- Engaging with relevant staff at your host institution, for example Named Animal Care and Welfare Officer (NACWO) and/or Animal Welfare and Ethical Review Body (AWERB) members and observing appropriate meetings.

 Creating a 3Rs culture within your research group and/or department, for example through a 3Rs journal club.

The word count for this section is 300 words.

4. Assessment procedure

Following submission, applications will be checked by the NC3Rs Office before review by the <u>Studentship</u> <u>Assessment Panel</u>. The following criteria are taken into consideration when making funding decisions:

- Potential impact on the 3Rs.
- Quality of the proposed project.
- Expertise and track record of the Supervisors.
- The training / research environment.

The <u>NC3Rs website</u> has further information available, including considerations for the informal outline stage, assessment and scoring criteria for Panel members, Panel membership and Declarations of Interest.

Please note funding decisions are final and not open to appeal.

All applicants will be informed of the outcome after the Panel meeting in October.

The NC3Rs reserves the right to amend the application process.

5. Confidentiality and what information will be made available to others

The NC3Rs is committed to its mission of using 3Rs principles to accelerate scientific discovery, support innovation and technological developments, and address societal concerns about animal research. The NC3Rs will handle all applications for funding in confidence, however applicants should note that in certain circumstances it will be necessary to share the information submitted with different audiences. The guidance below provides more information on this.

5.1 Declarations of interest - Panel members

NC3Rs Panel members are required to comply with the <u>UKRI Conflicts of Interest Policy</u>. Members are required to declare any private, professional or commercial interests that might, or that might be perceived to, conflict with the NC3Rs' interests.

Interests for members of the research panels are declared under the following categories:

- Personal remuneration (employment, pensions, consultancies, directorships, honoraria etc.).
- Registrable shareholdings and financial interests in companies.
- Research income.
- Major academic collaborations (national and international).
- Unremunerated involvement with and membership of bioscience, bio-medical, pharmaceutical/chemicals industry, healthcare provision or science policy/communication and similar activities/organisations.
- Political/pressure group associations.

<u>Declarations of interest for the current NC3Rs Studentship Assessment Panel</u> can be found on the NC3Rs website.

5.2 What we publish on our website

Details of awarded grants are routinely published. The information published on the NC3Rs website includes the following:

- Grant holder names, including co-applicants.
- Host institution and location.
- Value and duration of award.
- Research project title.
- Vision statement.
- 3Rs and research classification.
- Potential 3Rs impact.
- Keywords.
- Grant associated publications and other outcomes.

5.3 Freedom of Information Act (FOIA)

The FOIA gives anyone the right to request access to information held by the NC3Rs, including the information relating to applications and the peer review process.

The NC3Rs is an independent, scientific organisation and has responsibility for setting its scientific strategy and making funding decisions. However, it is not an independent public authority. The NC3Rs utilises some MRC systems and processes and for the purposes of the Freedom of Information Act (FOIA) is considered as part of the MRC, which in turn is part of UK Research and Innovation (UKRI).

Any request for information will be considered on a case-by-case basis and the NC3Rs will work with the MRC/UKRI to ensure information is handled appropriately and any sensitive material is correctly identified and has relevant exemptions of the Act applied. The NC3Rs and the MRC/UKRI will seek the views of the applicant and the research organisation wherever possible, and will consider these opinions in their deliberations. Further information on the approach taken can be found in the MRC Policy on Peer Review.

6. Our expectations for NC3Rs grant holders

In this section, applicants and existing grant holders can find information concerning the NC3Rs' expectations of its grant holders.

<u>Information on Post Award processes</u> (including grant extensions, requests for suspensions and transfers) can be found on the NC3Rs website.

For the 3Rs impacts of a project to be fully realised, NC3Rs-funded work needs to be widely disseminated and adopted by the scientific community. We aim to support our grant holders in these activities as much as possible, and we will arrange meetings to discuss a grant during the lifetime of the award.

6.1 Terms and conditions

All NC3Rs Grant holders must:

- Implement the principles in the cross-council guidance Responsibility in the Use of Animals in Bioscience Research.
- Where non-human primates are used, implement the principles in the <u>NC3R Guidelines: Primate</u> Accommodation, Care and Use.
- Abide by the <u>Animal welfare standards expected of suppliers of antibodies</u> when purchasing custommade antibodies and peptides.
- Aid the NC3Rs in its peer review process, as a condition of the grant and under reasonable circumstances, by providing a referee report if requested.

Studentship award holders must abide by the <u>Terms and Conditions of UKRI Training Grants</u> along with the expectations of doctoral training

6.2 Publications and Open Access publishing

The NC3Rs has adopted UKRI's policy on open access of publications, with the overall aim of disseminating publicly funded research to the widest possible community; not only to promote the scientific outputs, but also to ensure the highest level of utilisation and awareness of 3Rs methods. Holders of NC3Rs research grants are expected to disseminate their results by publishing in appropriate scientific journals, detailing the 3Rs impact of the work.

Grant holders must ensure all outcomes of NC3Rs-funded research including data, results, final conclusions and any other information relating to the research are published on a freely accessible platform in accordance with the UKRI policy on Open Access. All grant holders must ensure methodologies developed as part of NC3Rs-funded project(s) are published on the NC3Rs gateway or on another freely accessible platform.

Peer reviewed papers reporting research that is wholly or partially funded by the NC3Rs must:

Be published in journals which are compliant with the UKRI policy on open access.

- Include details of the funding that supported the research NC3Rs support for an individual or research project must be acknowledged on all publications where such support has been significant (i.e. accounts for at least 20% of funding).
- Provide a statement on how the underlying research materials such as data, samples or models can be accessed.
- Make reference to the 3Rs implications of the research, including in the abstract and the main body
 of the text. It is a missed opportunity if publications from NC3Rs-funded grants are published without
 the 3Rs impacts being articulated.
- Report animal-based studies in accordance with the <u>ARRIVE guidelines</u>; this includes studies using non-mammalian model organisms.

The NC3Rs should be informed of any publications or other promotional material or events arising from the grant; please email a PDF copy to the studentships@nc3rs.org.uk mailbox.

From 1 April 2013 and until further notice, UKRI will solely pay for Article Processing Charges (APCs) through block grants to UK Higher Education Institutions, approved independent research organisations and Research Council Institutes. Grant applications will no longer include provision for Open Access publication or other publication charges. Applicants should not include any costings for APCs or other types of publication that acknowledge funding from the NC3Rs.

The NC3Rs contribution to APCs is paid via the MRC contribution to the UKRI block grant. To encourage adoption of the open access policy, the NC3Rs has joined <u>Europe PubMed Central</u> (Europe PMC).

All grant holders must deposit any publications arising from NC3Rs-funded research into EuropePMC at the time of final publication, as defined in <u>Annex 1 of the UKRI Open access policy</u>.

6.3 Reporting requirements and evaluation

Information on the outcomes of NC3Rs funding is vital to our evaluation activities and helps us to make the case for continued substantial public investment in 3Rs research.

The NC3Rs uses Researchfish for the collection of NC3Rs grant outputs and outcomes data and for monitoring the progress on grants both during and after the lifetime of the award. You will receive log-in details from Researchfish Ltd. and will then be able to check, add to and edit your outputs and outcomes data.

Grant holders must use Researchfish to report on their grant periodically and when requested to do so by the NC3Rs or Researchfish. You can input data into Researchfish all year round and are asked to formally submit your information during an annual submission period. There is also a requirement to update Researchfish when your grant is coming to an end. Failure to update Researchfish within three months of the grant end date will result in an automatic financial penalty.

Table 3: Our reporting requirements

Who

- Compliance with Researchfish reporting is a requirement for every grant issued by the NC3Rs (including CRACK IT awards).
- The PI is responsible for their Researchfish submission but can give access to other team members to help input information.

When

- Grant holders can, and should, submit information to Researchfish all year round and for at least five years after the grant has ended.
- The NC3Rs has an annual collection period in line with the Research Councils.
- There is also a requirement to update Researchfish when your grant is coming to an end.

What

- 3Rs question set detailing the 3Rs impacts of the grant.
- Details of all outputs, outcomes and impacts, when available, arising from the grant.
- We have published an <u>Evaluation Framework</u> for assessing 3Rs impact. The Framework provides examples of the types of metrics that Grant holders should report in Researchfish.

Why

- To showcase your impacts and achievements.
- To identify how we can use our expertise and networks to help maximise your impacts both scientific and 3Rs.
- To monitor progress on grants. Researchers who do not report into Researchfish when requested to do so, or use the system inappropriately, may be subject to sanctions (withholding or claw-back of grant payments) and will become ineligible to apply for additional grants from the NC3Rs (and potentially the Research Councils). A flag will be applied on the grant's system so that all Research Councils are aware of the failure to report
- Researchfish is not a publicly accessible data repository. However, data held in Researchfish may be used by the NC3Rs to populate our website and for production of publications such as our Annual Report and Research Review

6.4 Changes to an NC3Rs-funded project

Grant holders must inform and consult with the NC3Rs if there are any significant changes that may affect the progress or delivery of the project and its potential to realise a 3Rs impact. No substantive changes to the experimental design of a project involving the use of animals, which might affect the ethical characteristics of the award, are allowed without the prior approval of the NC3Rs.

If a grant holder proposes to make significant changes to their NC3Rs-funded project, the NC3Rs reserves the right to request revised proposals for its approval. Where significant changes are proposed, the NC3Rs may decide to make a new grant in place of the existing grant, or to revise, retain or terminate the existing grant.

6.5 Mid-award and end-of-award progress reports and meetings

In addition to the reporting requirements on Researchfish, grant holders are required to complete a mid-award and end-of-award progress report. Grant holders will be contacted in advance to schedule a meeting to discuss the progress report. Members of the NC3Rs team and, in some cases an NC3Rs Board member, will attend on behalf of the NC3Rs. NC3Rs students must also attend.

The NC3Rs reserves the right to sanction, and in exceptional cases to terminate, a grant at any stage if unsatisfactory progress has been made.

Queries about our reporting requirements should be sent to studentships@nc3rs.org.uk.

7. Useful links and resources for compiling an application

7.1 Websites

- NC3Rs website
- NC3Rs PhD Studentships scheme
- UKRI Funding service homepage
- How to make a successful grant application
- UKRI Doctoral Stipend Levels and Indicative Fees
- UKRI Guidelines Studentships
- UKRI Training Grants Terms and Conditions
- Researchfish
- Experimental Design Assistant

7.2 Supporting forms required for an application

- Informal Outline Form
- Data management plan
- Resources

8. Questions and queries

For questions related to the Studentship scheme please contact the NC3Rs Office: studentships@nc3rs.org.uk

For questions related to the use of the Funding Service, please contact support@funding-service.ukri.org or call the UKRI Funding Service Helpline: +44 (0)1793 547 490