



National Centre  
for the Replacement  
Refinement & Reduction  
of Animals in Research

# NC3Rs Project grants Scheme

## Applicant guidance



# NC3Rs Project grant scheme - Applicant guidance for submitting a formal outline

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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 [our funding schemes](#) 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, and support the initial development of 3Rs approaches, their characterisation to demonstrate that they are fit-for purpose and sharing across the wider community to encourage uptake and their use into routine practice. We refer to this as our project pipeline – there are four steps in the pipeline which are detailed below. Our funding schemes map across the pipeline as shown in Table 1.

**Table 1: NC3Rs Funding schemes mapped onto the project pipeline**

Project pipeline stage	Funding schemes			
Development	PhD Studentships		Project grants	
Fit-for-purpose				
Dissemination		Early Career Engagement awards		Partnerships and Impact awards
Uptake and impact				

This document provides guidance to prospective applicants applying to the [Project grant scheme](#). The Project grant scheme supports the first three steps of the project pipeline (as shown in Table 1) – the development of

3Rs approaches, their characterisation to demonstrate that they are fit-for purpose and dissemination activities to promote awareness within the wider scientific community. An application to the Project grant scheme must be focused on at least two of these three steps of the project pipeline.

## 1.1 The 3Rs

The [principles of the 3Rs](#) (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 Project grant scheme aims to support the development of new 3Rs approaches and technologies.

Applications from any area of medical, biological or veterinary research are within remit and those that integrate a range of disciplines or include an industrial partner are particularly encouraged.

**Table 2: Overview of the Project grant scheme**

<b>Scheme at a glance</b>
<ul style="list-style-type: none"><li>▪ The NC3Rs Project grant scheme aims to support the development of new 3Rs approaches and technologies.</li><li>▪ Applications may be for up to 36 months' in duration.</li><li>▪ The amount requested should be dependent on the science. Awards are funded at 80% of the full economic cost (FEC).</li><li>▪ Project grant funding competitions are run annually. Key dates include:<ul style="list-style-type: none"><li>▪ Informal outline deadline – January</li><li>▪ Full application deadline – April</li><li>▪ Applicants informed of outcome – July</li><li>▪ Awards must start by 1 October following award acceptance</li></ul></li><li>▪ The NC3Rs does not permit resubmissions, please see section 2.1.2 for more information.</li></ul>
<b>Individual eligibility</b>
<ul style="list-style-type: none"><li>▪ Applicants should be UK-based researchers who can demonstrate that they will direct the proposed research and be actively engaged in accomplishing the project's aims.</li><li>▪ The minimum formal qualification required is a graduate degree, although it would normally be expected that the applicant has been awarded a PhD.</li><li>▪ Applications involving less experienced researchers should be made in collaboration with more senior colleague(s).</li><li>▪ 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 Project Lead for further NC3Rs funding (excluding CRACK IT and Partnerships and Impact awards – please <a href="#">contact the Office</a> to discuss).</li><li>▪ Researchers based in overseas organisations and/or in industry are not eligible to apply as Project leads (please see sections 3.2.1 and 3.2.2, respectively, for further guidance).</li></ul>
<b>Establishment eligibility</b>
<ul style="list-style-type: none"><li>▪ Any UK research establishment can apply, including:<ul style="list-style-type: none"><li>▪ Higher Education Institutes (HEIs).</li><li>▪ Independent Research Organisations (IROs).</li><li>▪ Research Council (RC) Institutes.</li></ul></li></ul>

## **2. The application process**

### **2.1 How to apply**

#### **2.1.1 Formal outline application**

Applicants are required to submit a formal outline of the research proposal through the [UKRI Funding Service](#).

Outline applications are assessed by the [Grant Assessment Panel](#). Only successful outline applications will be invited to submit a full proposal.

The same or similar application cannot be considered by any other Research Council, the Health Departments or any other research funder at the same time.

Each Project lead may submit a **maximum of two** applications per call deadline. Applicants are advised to seek funding on the basis of the quality of their application rather than the number that can be submitted.

For assistance with using the Funding Service, please contact [support@funding-service.ukri.org](mailto: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, without exception. The research office is responsible for submitting the completed and checked application.

### 2.1.2 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 to the proposal must be submitted to the NC3Rs office [by email](#). 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 formal outline application form

This section contains guidance on how to complete the formal outline application form on the UKRI Funding Service. Sub-sections are named as they appear in the application form.

Please note that no attachments (CVs or letters of support) are permitted at the formal outline stage.

The Opportunity reference on the Funding Service is **OPP347: NC3Rs Project grants 2024 Formal outline**. To start an application, click [here](#).

It is strongly recommended that the person who starts and completes the formal outline application is the Project Lead.

### 3.1 Application details

**Please note:** the Application name and Summary should be **non-confidential** as, if successful at outline stage, they will be used when approaching candidate referees to review the full proposal.

- **Application name** – Enter the name of the formal outline application. The title of the project should also be relevant to the 3Rs.
- **Summary** – Please provide a scientific abstract in the Summary field. The word limit for this section is 400 words.
- **Start date** – Please note the latest start date is 1 October 2024.
- **Duration** – Projects may be for up to 36 months' in duration.

### 3.2 Core team

This section should include the roles that applicants have as the core team delivering the proposal. Please ensure all applicants are eligible to apply (see Table 2).

One applicant must be designated as the Project Lead, the second and any further applicants should be included as Project co-Lead(s) (UK) or Researcher co-Lead(s).

Each application must include:

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

#### OPTIONAL

- Project co-Lead(s) (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).
- Researcher co-Lead(s) - 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. For example, a postdoctoral researcher working on the project.

#### 3.2.1 Overseas researchers

Overseas researchers are not eligible to apply as Project Lead but can be included as collaborators or in **exceptional circumstances** as Project co-Lead (International). Project co-Lead(s) (International) must be approved by the NC3Rs Office prior to submitting a formal outline application. This approval must be mentioned in the 'Applicant and team capability to deliver' section of the application form. [More information on](#)



[overseas Project co-Lead costs](#) can be found in the MRC Guidance for Applicants. The NC3Rs has adopted MRC policy.

### 3.2.2 Researchers based in industry

Industry organisations are not eligible for FEC funding and are only eligible to apply for funding from the NC3Rs as a Project co-Lead. Alternatively, a researcher based in industry may be included as collaborator or Project partner.

### 3.2.3 Project partners

A Project partner provides a substantial intellectual contribution to the project, and their organisation may also provide resource either in-kind or financially. Project partners are not expected to request NC3Rs funding as part of an application. Details of Project partners and their contributions should be noted in the 'Applicant and team capability to deliver' section of the application form.

### 3.2.4 Collaborators

Details of collaborators should be noted in the 'Applicant and team capability to deliver' section of the application form.

## 3.3 Vision

The **Vision** section should be a summary of what you aim to achieve with your proposed work. It should include the following information:

1. A brief outline of the project's scientific and 3Rs objectives.
2. A rationale for how your proposed project:
  - a. is scientifically original and innovative.
  - b. addresses a strategically important 3Rs area.
  - c. has the potential to advance current understanding, generate new knowledge, thinking or discovery within or beyond the field or area of research.
  - d. is timely given current trends, context and needs.
  - e. may offer potential for additional health, socioeconomic or environmental benefits.

The word limit for the Vision section is **700 words**.

## 3.4 Approach

The **Approach** section should describe how you will deliver the proposed project. It should include the following information:

1. **A brief description of your experimental plans, including supporting preliminary data.** You should demonstrate how your approach:
  - a. is effective and appropriate to achieve your scientific and 3Rs objectives. Highlight plans that are particularly original or unique.

- b. uses a clear, transparent and sound methodology. Consider how the model, tool or technology will be characterised or validated to show it is fit-for-purpose.
  - c. is feasible and identifies potential risks to delivery and how they will be managed.
  - d. if applicable, builds upon and progresses previous work.
2. **A 3Rs case.** Please refer to section 3.4.1 for further guidance on writing a 3Rs case. In summary, this should include:
  - a. a summary of how your proposed research will directly replace, reduce and/or refine the use of animals in research or testing.
  - b. supporting metrics demonstrating the potential scale of the 3Rs impact.
  - c. whether the outcomes could be applicable to other models or research areas.
3. **A high-level strategy for promoting the proposed research and 3Rs outcomes within the scientific community, including the likelihood of adoption by other groups.** 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.

Figures and images can be inserted into the Approach section, a descriptive legend should be included underneath each image. Figures and images must be less than 8MB and can be the following formats:

- JPEG, JPG, JPE, JFI, JIF, JFIF, PNG, GIF, BMP or WEBP

The word limit for the Approach section is **1000 words**.

**References:** relevant scientific publications may be cited in the Approach section 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. The word limit for the References section is 500 words.

### 3.4.1 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:

1. **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?
2. **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.
3. **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’](#).

### 3.5 Applicant and team capability to deliver

In this section, applicants are required to provide a narrative to showcase the skills and expertise of the proposed research team, **including** and any other **collaborators** and/ or **project partners**, and how this will help successfully deliver the proposed project.

In this section include a brief summary of how your team, have:

- The right balance of skills and expertise to deliver the proposed work.
- Where applicable, a track record in implementing the 3Rs in your research and disseminating research outputs and impacts.

For Project partners, please also describe:

- How they will be involved in the project, and
- What they will provide, including in-kind and monetary contributions (see Table 3 for further information).

If applicable, where an overseas researcher is included as Project co-Lead (International), please also mention whether prior approval by the NC3Rs Office has been sought.

The word count for this section is **700 words**.

**Table 3. Project partner contributions**

<b>Total cash contribution from Project partners</b>	These are cash contributions from the project partner to the project.
<b>Total in-kind contribution from Project partners</b>	These are in-kind project partner contributions such as materials and equipment donated to the project, costs of any project partner staff to be seconded to the work, costs related to the use of facilities or equipment on the project partner's own premises, the costs to the collaborating body of providing staff time in project liaison, management and evaluation.

### 3.6 Outline costs

In this section, applicants are required to provide a high-level summary of the resources needed to achieve the objectives of the project.

Please enter the costs being requested under the relevant headings summarised in Table 4: High-level cost headings.

Points to note:

- Costings should be calculated on the basis of full economic costs (fEC). The NC3Rs will generally meet 80% of these costs unless there are Exceptions.
- A detailed breakdown of costs is not required at the outline stage, the figures provided should represent the best estimates.
- All fields in the Resources section must be populated, even if nil costs apply.
- A justification of resources is not required at the outline stage.

Additional guidance on completing the Resources section can be found in the [MRC Guidance for Applicants](#) with specific guidance regarding the [costing of equipment onto a proposal](#).

MRC University Units, MRC Units/Institutes and the Francis Crick Institute can apply for NC3Rs funding but applicants must follow the same costing guidance detailed in the [MRC Guidance for Applicants, Section 3.8: Costing of applications involving MRC institutes](#), when completing their application.

**Table 4: High-level cost headings**

<b>Directly incurred</b>	These are costs that are explicitly identifiable as arising from the conduct of a project, are charged as the cash value actually spent and are supported by audit records. They include: staff, travel and subsistence, equipment and other costs (e.g. consumables).
<b>Directly allocated</b>	These are costs of resources used by a project that are shared by other activities. They are charged to projects on the basis of estimates rather than actual costs and do not represent actual costs on a project-by-project basis. They include: investigators, estates and other costs (e.g. pool staff, IT systems).
<b>Indirect costs</b>	These are costs that are non-specific cost estimates charged across all projects that are not otherwise included as Directly allocated costs. They include the costs of the Research Organisation's administration such as personnel, finance, library and some departmental services.
<b>Exceptions</b>	These are Directly incurred costs that RC's will fund in full (e.g. at 100%), subject to actual expenditure incurred, or items that are outside FEC.  At outline stage, these costings may include costs related to pieces of equipment costing more than £10k. The Research Organisation is expected to fund 50% of the

FEC value for items of equipment over £10k and so only the amount requested from NC3Rs should be entered.

Costs related to industry investigators should be included under this cost heading.

#### 4. Submitting a formal outline application

When all sections of your formal outline application are complete, you must send it to your research office for approval; this is done via TFS. 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.

The research office then submits the application to the NC3Rs for assessment.

#### 5. Assessment procedure

There is a two-stage application process for project grant applications. The first stage is the formal outline application which is assessed by the [Grant Assessment Panel](#). The Panel will reach a consensus decision for each application, on whether or not the applicant should be invited to submit a full project grant application.

In the second stage, invited full applications will be sent for external peer review. In making final funding recommendations, the [Grant Assessment Panel](#) will consider both the full application and comments from the external peer reviewers.

The following criteria are taken into consideration when making funding decisions:

- Potential impact on the 3Rs.
- Quality of the proposed project.
- Current or future importance of the proposal to medical, biological or veterinary science.
- Strategy for promoting the proposed research and 3Rs outcomes within the scientific community.
- Expertise and track record of the team.
- Value for money.
- Strategic relevance (where appropriate).

The NC3Rs website has further information available, including the [assessment and scoring criteria for Panel members, Panel membership and Declarations of Interest](#).

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

All applicants will be informed of the outcome after the outline assessment meeting in March.

The NC3Rs reserves the right to amend the application process.

## 6. 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.

### 6.1 Declarations of interest – Panel members

NC3Rs Panel members are required to comply with the [UKRI Conflicts of Interest Policy](#). 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.

[Declarations of interest for the current NC3Rs Grant Assessment Panel](#) can be found on the NC3Rs website.

### 6.2 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.

### **6.3 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](#).



## 7. 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.

[Information on Post Award processes](#) (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.

### 7.1 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 [NC3R Guidelines: Primate Accommodation, Care and Use](#).
- Abide by the [Animal welfare standards expected of suppliers of antibodies](#) when purchasing custom-made 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.

Project grant award holders must abide by the [Terms and Conditions of UKRI Research Grants](#).

### 7.2 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 [ARRIVE guidelines](#); 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 [3rsgrants@nc3rs.org.uk](mailto:3rsgrants@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 [Europe PubMed Central](#) (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 [Annex 1 of the UKRI Open access policy](#).

### 7.3 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 5: Our reporting requirements**

Who
<ul style="list-style-type: none"><li>▪ Compliance with Researchfish reporting is a requirement for every grant issued by the NC3Rs (including CRACK IT awards).</li><li>▪ The PI is responsible for their Researchfish submission but can give access to other team members to help input information.</li></ul>
When
<ul style="list-style-type: none"><li>▪ Grant holders can, and should, submit information to Researchfish all year round and <b>for at least five years</b> after the grant has ended.</li><li>▪ The NC3Rs has an annual collection period in line with the Research Councils.</li><li>▪ There is also a requirement to update Researchfish when your grant is coming to an end.</li></ul>
What
<ul style="list-style-type: none"><li>▪ 3Rs question set - detailing the 3Rs impacts of the grant.</li><li>▪ Details of all outputs, outcomes and impacts, when available, arising from the grant.</li><li>▪ We have published an <a href="#">Evaluation Framework</a> for assessing 3Rs impact. The Framework provides examples of the types of metrics that Grant holders should report in Researchfish.</li></ul>
Why
<ul style="list-style-type: none"><li>▪ To showcase your impacts and achievements.</li><li>▪ To identify how we can use our expertise and networks to help maximise your impacts - both scientific and 3Rs.</li><li>▪ 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.</li></ul>

- 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](#).

## 7.4 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.

## 7.5 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.

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 [3rsgrants@nc3rs.org.uk](mailto:3rsgrants@nc3rs.org.uk).

## 8. Useful links and resources for compiling an application

### 8.1 Websites

- [NC3Rs website](#)
- [NC3Rs Project grant scheme](#)
- [UKRI Funding service homepage](#)
- [How to make a successful grant application](#)
- [UKRI Research Grants Terms and Conditions](#)
- [Researchfish](#)
- [Experimental Design Assistant](#)

## 9. Questions and queries

For questions related to the Project grant scheme please contact the NC3Rs Office: [3rsgrants@nc3rs.org.uk](mailto:3rsgrants@nc3rs.org.uk)

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

## **Appendix - Project pipeline definitions and examples**

The 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. 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. To do this we provide funding to support the initial development of 3Rs approaches, their characterisation to demonstrate that they are fit-for purpose and sharing across the wider community to encourage uptake and their use into routine practice. We refer to this as our project pipeline – there are four steps in the pipeline which are detailed below. Our funding schemes map across the pipeline as shown in Table 1.

### **Development: Creating new models, tools and technologies to deliver 3Rs impact**

This is the first step in the pipeline focusing on building a new 3Rs model, tool or technology to address an important scientific question, new challenge or bridge a key knowledge gap where there is a clear 3Rs need. The emphasis is on developing an approach that does not already exist and that has potential for achieving significant 3Rs impact.

Projects may focus on creating an entirely novel 3Rs model, tool or technology; bringing together different approaches or opportunities to establish a new 3Rs model, tool or technology; or substantially modifying an existing model, tool or technology where there is significant and unrealised 3Rs potential.

Studies should aim to generate evidence to support the proof-of-concept. An important focus should be on determining whether the proposed 3Rs approach is feasible and providing important data to help further develop and build the 3Rs model, tool or technology.

Examples include: Development of a new invertebrate model of disease as an alternative to the use of vertebrate approaches; increasing the complexity of a microphysiological system by including additional elements such as flow or other cell types; or modifying an existing *in vivo* procedure to reduce the number of animals required per study or improve welfare outcomes.

### **Fit-for-purpose: Building confidence in 3Rs approaches within the context of use**

This part of the pipeline focuses on generating an evidence base to demonstrate that the 3Rs model, tool or technology is appropriate for the intended scientific purpose and will have an impact on the use of animals.

Studies should demonstrate the 3Rs model, tool or technology is relevant, reproducible and scientifically robust, and may encompass the following:

- Detailed model characterisation (conceptual validation) to demonstrate the distinctive features and performance characteristics of the 3Rs approach. For example, this may include studies to determine the biochemical, histological, pharmacological, genetic and functional profile of a model.

- Feasibility studies that build on the proof-of-concept data to show the validity and utility of the 3Rs model, tool or technology. These studies may focus on determining whether the 3Rs approach is performing as expected, is generating results that are relevant and is appropriate for further testing to address a specific research question or purpose.
- Optimisation studies that further fine-tune the model, tool or technology to improve its utility.
- Comparative studies to demonstrate how the 3Rs approach is scientifically better than, or at least comparable to, currently used methods to help build confidence in the model, tool or technology. Studies often include a like-for-like comparison against the current state-of-the-art or gold standard animal models, or benchmarking against historical animal data or clinical data.
- Reproducibility studies to show that the 3Rs model, tool or technology produces reliable and replicable findings, helping to build further confidence in the approach. Studies may focus on replicating findings at the experimental level such as between different strains of animal, species or cell lines; or at an operational level such as between users within the same laboratory or between different laboratories.

### **Dissemination: Promoting 3Rs approaches to the wider scientific community**

This part of the pipeline focuses on sharing research findings with the scientific community, to achieve wider awareness of and engagement with the 3Rs model, tool or technology.

The communication and dissemination of a 3Rs approach is an essential factor in achieving wider 3Rs and scientific impacts, as these can only be delivered if an approach is adopted by others. Dissemination activities should be focused on different ways of sharing a 3Rs approach that ideally go beyond publications and conference attendance, to help lay the foundations for building a lasting impact that continue after the lifetime of an award. For all publications, [open science](#) practices are encouraged and reporting guidelines, including [ARRIVE](#), should be followed to better enable others to evaluate and reproduce the 3Rs approaches and associated scientific findings.

Examples include: General grant outputs such as publishing methods articles, including on the [NC3Rs gateway](#), that provide the full experimental details for setting up the model, tool or technology and research articles focused on using the 3Rs approach; presenting the 3Rs approach at key scientific meetings/conferences; delivering training or practical workshops to raise awareness of the 3Rs approach; or developing online resources, including videos, to aid further dissemination of the 3Rs approach.

### **Uptake and impact: Accelerating the adoption of 3Rs approaches into routine practice**

The final part of the pipeline focuses on actively transferring the 3Rs model, tool or technology to new end-users that will have a direct and immediate impact on the 3Rs. The objective should be to build further

confidence in the 3Rs approach, within the context it is being used, to realise the maximum scientific and 3Rs potential. Facilitating the adoption of 3Rs approaches by transferring the “know-how” so that the model, tool or technology is used by other researchers is key to sustaining lasting 3Rs impact well after an award has ended.

Examples include: Establishing new partnerships or collaborations with the primary aim to deploy the 3Rs model, tool or technology into more laboratories/research settings; studies demonstrating the portability or transferability of the 3Rs approach to a new setting or research field/question.

**Table 1. NC3Rs Funding schemes mapped onto the project pipeline**

Project pipeline stage	Funding schemes			
Development				
Fit-for-purpose	PhD Studentships	Early Career Engagement awards	Project grants	Partnerships and Impact awards
Dissemination				
Uptake and impact				