# Additional questions on the use of *Xenopus* outside of the UK

UK funders expect high standards in animal research regardless of geographical location. This includes meeting or exceeding UK standards of animal welfare, such as those set out in the UK Home Office [Code of Practice for the Housing and Care of Animals Bred, Supplied or Used for Scientific Purposes](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/388535/CoPanimalsWeb.pdf) and the NC3Rs guidelines on the [Responsibility in the Use of Animals in Bioscience Research](https://www.nc3rs.org.uk/responsibility-use-animals-bioscience-research).

Applicants are responsible for obtaining sufficient information to accurately complete the sections below, this includes work that will be conducted by overseas collaborators or contracted to Contract Research Organisations (CROs).

For more information on this form, including guidance on how to complete it, visit the [NC3Rs website](https://nc3rs.org.uk/3rs-resources/peer-review-and-advice-service).

## Section 1. Checklist of additional questions

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| **The *Xenopus* on this study will be…** | **Yes/No/Not applicable (NA)** |
| 1. Bred and reared in captivity for scientific purposes.
 | Select |
| 1. Housed in tanks that meet or exceed the water surface areas allocations for all amphibians in the [UK Home Office Code of Practice for the Housing and Care of Animals Bred, Supplied or Used for Scientific Purposes](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/388535/CoPanimalsWeb.pdf) (table 2-11-2).
 | Select |
| 1. Housed in size-matched groups to promote feeding behaviour, reduce fear responses and minimise the risk of cannibalism.
 | Select |
| 1. Maintained in water with parameters falling within the bounds of the following ranges, *Xenopus laevis*: 17-20oC; pH 7.5-9; conductivity 1500-1600 µS; NO2 <1 mg/l; NO3 < 0 mg/l; NH3 < 0.03 mg/l. *Xenopus tropicalis*: 24 - 27oC; pH of 7.5-9; conductivity 700-900 µS; NO2 <1 mg/l; NO3 < 0 mg/l; NH3 < 0.03 mg/l.
 | Select |
| 1. Maintained in stable environmental conditions and gradually acclimated to changes in water temperature and/or quality. Contingency plans are in place for maintaining stable environmental conditions in case of system breakdown or loss of power. Water is cleaned or replaced at appropriate intervals using methods designed to minimise disturbance to the frogs.
 | Select |
| 1. Provided with food as appropriate for the species and life stage (see guidance from the [European *Xenopus* Resource Centre](https://xenopusresource.org/husbandry))
 | Select |
| 1. Provided with a refuge within the tank (e.g. PVC or ceramic tubes).
 | Select |
| 1. Maintained under an appropriate day/night light cycle with a light source that includes wavelengths within the UV spectrum.
 | Select |
| 1. Managed with appropriate biosecurity protocols including all of the following: a) a quarantine system and health screening policy; b) hand nets designated to specific tanks/racks and sanitised between uses; c) a filtration system that includes a UV steriliser.
 | Select |
| 1. Handled with non-powdered plastic or latex gloves.
 | Select |
| 1. Identified using their natural markings or if markings are not obvious microchips implanted under anaesthesia. *Select ‘No’ if frogs will undergo toe biopsy, even if this has been agreed with the veterinarian.*
 | Select |
| 1. Monitored daily in all cases, with the frequency of monitoring increasing as required to keep pain and distress to a minimum for the specific study and intervention (e.g. following surgery or dosing).
 | Select |
| 1. Monitored using a method of [welfare assessment](https://www.nc3rs.org.uk/3rs-resources/welfare-assessment) that allows staff to take prompt and consistent action should a [humane endpoint](https://www.nc3rs.org.uk/3rs-resources/humane-endpoints) be reached. *Select ‘No’ if death will be used as an endpoint. Select ‘NA’ if this study will not cause harm, pain or distress to the animals. It is recommended that humane endpoints are established in consultation with the veterinarian and animal care staff and reviewed by the UK Animal Welfare and Ethical Review Body (AWERB) before the study commences.*
 | Select |
| 1. Monitored closely for emerging and harmful phenotypes if animals are genetically altered, with known harmful phenotypes being avoided. *Select ‘No’ if harmful phenotypes are considered scientifically justified and provide justification in Section 2. Select ‘NA’ if no genetically altered strains will be generated.*
 | Select |
| 1. Given anaesthesia and/or analgesia to minimise pain and distress as advised by a veterinarian. *Select ‘No’ if the study is expected to cause pain beyond brief, mild discomfort and anaesthesia and/or analgesia will not be provided to alleviate this. Select ‘NA’ if animals will not undergo any procedures expected to cause pain beyond brief, mild discomfort.*
 | Select |
| 1. Operated on using a) aseptic technique, b) the least invasive surgical approaches, c) appropriate perioperative care (e.g. pre-operative medications and maintenance of body temperature) and d) care taken to prevent the animal drying out during surgery or drowning while recovering from anaesthesia. *Select ‘NA’ if no surgery will take place.*
 | Select |
| 1. Humanely killed using methods permitted for the species within the UK Home Office [Guidance on the operation of the Animals (Scientific Procedures) Act 1986](https://assets.publishing.service.gov.uk/media/65815e32ed3c3400133bfb07/Guidance_on_the_operation_of_ASPA_-_December_2023.pdf) (Appendix D). *Select ‘No’ if the method is not listed as appropriate method of humane killing of species within Appendix D of this guidance and use Section 2 to indicate the method of killing and provide the name of the guidelines that recommend the method. Select ‘NA’ if the animals will not be killed.*
 | Select |

## Section 2. Exceptions and additional information

For each item in *Section 1. Checklist of additional questions* where ‘No’ has been selected, provide brief information outlining:

* Why this study will require exceptions to the conditions outlined in the checklist (this should be a scientifically principled justification).
* What action will be taken to mitigate potential animal welfare issues related to this exception.

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## Section 3. Declaration

**I confirm that:**

* The information provided within *Section 1. Checklist of additional questions* has been verified by a representative at the institution where the animal work will take place. The representative has confirmed that the conditions outlined in this document will be maintained during the study. The details of the representative are:
	+ - Name:
		- Institution:
		- Job title:
		- Email address:
* The animal work taking place outside of the UK will be reviewed by a UK institution’s Animal Welfare and Ethical Review Body (AWERB) before the study commences and this document will be provided to the AWERB for their records. The details of the AWERB are:
	+ - Institution:
		- Committee/subcommittee name:

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| Principal applicant name:      Date:       |

\*If you are based at an institution outside of the UK without a UK partner institution and therefore this work cannot undergo review by a UK AWERB, check this box [ ]