UK Dementia Research Institute

2019-20 UK DRI Mouse Models for dementia research

REQUEST FOR PROPOSALS

UK DRI Group Leaders or Associated Members are invited to apply to the UK DRI-Animal Models Programme (UK DRI-AMP) at the Mary Lyon Centre, MRC Harwell (MLC) for the generation of **new genome edited mouse models to address novel research question**. New point mutation(s), knockouts, targeted insertional transgenic models (e.g. lines expressing recombinases, fluorescent tags) will be generated by CRISPR-Cas9 gene-editing or targeted insertional transgenesis. Cross-site/multi-PI projects, tool-development for hypothesis testing and novel research questions from PIs without a track-record in mouse research are particularly encouraged.

All new mouse lines will be deposited at the MLC European Mutant Mouse Archive (EMMA) node and will be freely available to all UKDRI PIs immediately. A moratorium on open distribution to external researchers can be requested by the lead PI of the original application until date of first publication.

The programme will provide a novel line(s) of fully genetically validated mice (breeding pairs to found a colony at the PI and Co-I institutions) and archiving of these at the MLC. Funds for animal work at the PIs Institution will not be provide.

Clinical, translational and basic research projects will be considered. Applications will be assessed for feasibility by Mary Lyon Centre researchers, and for scientific merit, novelty and long-term utility and expected impact by a scientific panel composed of UK DRI, MRC-Harwell and external scientists. **PIs without a previous track-record in animal research are encouraged to informally discuss their application with Dr. Wiseman (f.wiseman@ucl.ac.uk) in the first instance.**

Applications are restricted to UK DRI Group Leaders or a recognized UK DRI Associated Member. Up to four awards will be made in 2020. This RFP will be repeated in 2021 and 2022 in the first instances.

Founding funders:

MRC Medical Research Council

Alzheimer's Society

Alzheimer's Research UK

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Important Dates

RFP announced:	2 December 2019
Applications due:	Midday 21 February 2020
Recipients announced:	Mid-April 2020
Delivery of breeding pairs:	Typically, 9-18 months after award; complex genetic changes may have a longer time-line.

Guidelines

1. Applicants must be recognised UK DRI Group Leaders or Associated Members.
2. It is the responsibility of the applicants to obtain all relevant clearances and/or approvals for the proposed animal research at their institution.
3. It is the responsibility of the applicants to obtain the research funding for the proposed animal research at their institution.
4. A letter(s) of support should be included from any UK DRI Co-Investigators and non-UK DRI collaborators.
5. AMP Programme Leader (F. Wiseman) and two members of MLC staff (individuals will depend upon nature of the project) must be included as named co-authors on the first publication with the new mouse line.
6. All new mouse lines will be freely available to all UK DRI PIs.
7. All new mouse lines will be deposited at the MLC EMMA node.
8. A moratorium on open distribution of the mouse line to external researchers can be requested by the lead PI of the original application until date of first publication.

Selection Criteria

1. Feasibility. What resources are required to generate the proposed model? Can it be delivered within a realistic time-scale? Are issues of animal viability or adverse welfare outcome expected and is a plan in place to mitigate these?

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2. Significance. Will the new model be useful to address an important problem relevant to our understanding, diagnosis, treatment or prevention of dementia or neurodegenerative diseases? Is there sufficient preliminary data supporting the rational for the new model? Is there broad interest in the model, as evidenced by Co-applicants at other DRI sites and collaborators?

3. Novelty. Will the new model allow the testing of novel hypothesis? Are other researchers generating a similar strain? If the model already exists is there a clear rational as to why a new line is required (this may include prohibitive usage agreements for commercial lines)?

4. Integration. Are the plans for use of the new model well integrated into the PI and Co-I wider aims and other research approaches? Will the new model facilitate novel cross-PI collaborative research.

5. Environment. Are the applicants appropriately experienced to supervise the work proposed on the new model at their institution? Does the scientific environment in which the work will be done contribute to the probability of success? Are reagents, tools or other methods in place to begin the project to allow the project to start promptly and progress rapidly? Is the Biological services facility at the Institution suitable for the work outline and is a PPL in place?

6. 3Rs – Replacement, Reduction and Refinement (www.nc3rs.org.uk/the-3rs). Is the need to use a mouse model well justified? Have alternative approaches been considered?

Applications must include the following

1. MMDR Application form.

2. Ancillary Documents Applications must also include:

- Letters of agreement/support (1.0 page each) from UK DRI Co-Is and external collaborators whose research would also benefit from the new model

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Rules and Requirements

1. The deadline for the receipt of the application is **midday 21 February.**
2. The entire package must be assembled into a **single PDF** and emailed to enquiries@ukdri.ac.uk
3. Format: All text must be Arial or Calibri 11-point font. Figures, charts, tables, etc must be readily legible. Single-spacing is allowed. Margins, in all directions, must be at least 2 cm.

For application process or administrative issues, please contact Aoife at a.kiely@ucl.ac.uk

For questions of a scientific nature, please contact Frances Wiseman at f.wiseman@ucl.ac.uk
for feasibility questions please contact Gemma Codner (g.codner@har.mrc.ac.uk)

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