The NC3Rs and GW4: working together to advance the 3Rs within universities

Our collaboration

The NC3Rs is a Government-backed organisation that works with scientists and organisations across the bioscience sector to develop and implement new technologies and approaches that replace, reduce and refine the use of animals in research (the 3Rs).

We have shown that science and technology focused on minimising animal use or improving welfare also delivers scientific benefits that translate to improving human health, protecting the environment and providing business opportunities. Research area of NC3Rs-funded grants to GW4 universities since 2014

Neuroscience and Behaviour

Infection, Immunity and Inflammation

Cells and Systems

Our Regional Programme Managers work within UK research institutions to maximise their commitment to the 3Rs by:

- Raising awareness and disseminating the work of the NC3Rs, including our funding opportunities.
- Organising workshops and other events targeted to local training needs.
- Providing expert advice on the 3Rs, for example during preparation and review of project licences.
- Encouraging 3Rs research and knowledge exchange at a regional level.

Dr Jessica Eddy is co-funded by the NC3Rs and the GW4 Alliance to provide dedicated 3Rs support to the Universities of Bath, Bristol, Cardiff and Exeter. Dr Eddy took up her role in June 2018. Her work and impacts are outlined below.



Other activities and impacts

Having an NC3Rs Regional Programme Manager boosts 3Rs activity and impact within universities. Since June 2018, Jess has:

- Given 23 presentations, leading to increased engagement with NC3Rs online resources such as the Experimental Design Assistant (EDA), which supports *in vivo* researchers to design more robust and reproducible experiments.
- Organised two cross-institution symposia on the 3Rs, one PhD student Summer School and four workshops on experimental design, which engaged a total of **224 attendees**.
- Reviewed 36 project licences (applications and amendments), offering suggestions to further implement the 3Rs.
- Shared best practice between institutions to reduce and refine animal use, including linking research groups to maximise the use of rabbit tissue and introduce playpens for rats.

"I have been to a handful of similar events throughout my PhD and this summer school was by far the best."

Research awards

Jess has had **43 one-to-one meetings** with researchers to discuss funding opportunities, leading to an increase in applications to the NC3Rs funding schemes and three new project grants in 2019, **totalling £923k**:

- Do male mice prefer to live on their own? Professor Emma Robinson, University of Bristol (£399k)
- Galleria mellonella as an infection model for viral pathogens Professor Richard Titball, University of Exeter (£143k)
- Engineering Galleria mellonella as a model for infection, immunity and inflammation – Dr James Wakefield et al., University of Exeter (£381k)

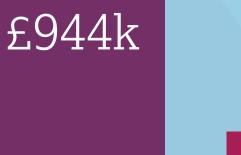
Since the GW4 Alliance began, the NC3Rs has committed almost £2m to GW4 universities, with the most funded research area being Neuroscience and Behaviour.

GW4 PhD student, NC3Rs Summer School

"Many thanks for the workshop, great information – I will use the EDA for my next experiment." GW4 PhD student, EDA workshop



Attendees at the 2019 NC3Rs Summer School, held at the University of Bristol



£655k

NC3Rs research funding committed to GW4 universities since 2014, broken down by 'R'

Future plans

The 2019 GW4 3Rs symposium will take place in Exeter on 4 December, featuring presentations that highlight excellent 3Rs research at each of the GW4 universities. Jess is also setting up an Early Career Researcher 3Rs group at Bristol, as well as a GW4 3Rs Twitter account.



For more information, contact jessica.eddy@nc3rs.org.uk and visit www.nc3rs.org.uk

NC 3R^s

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

