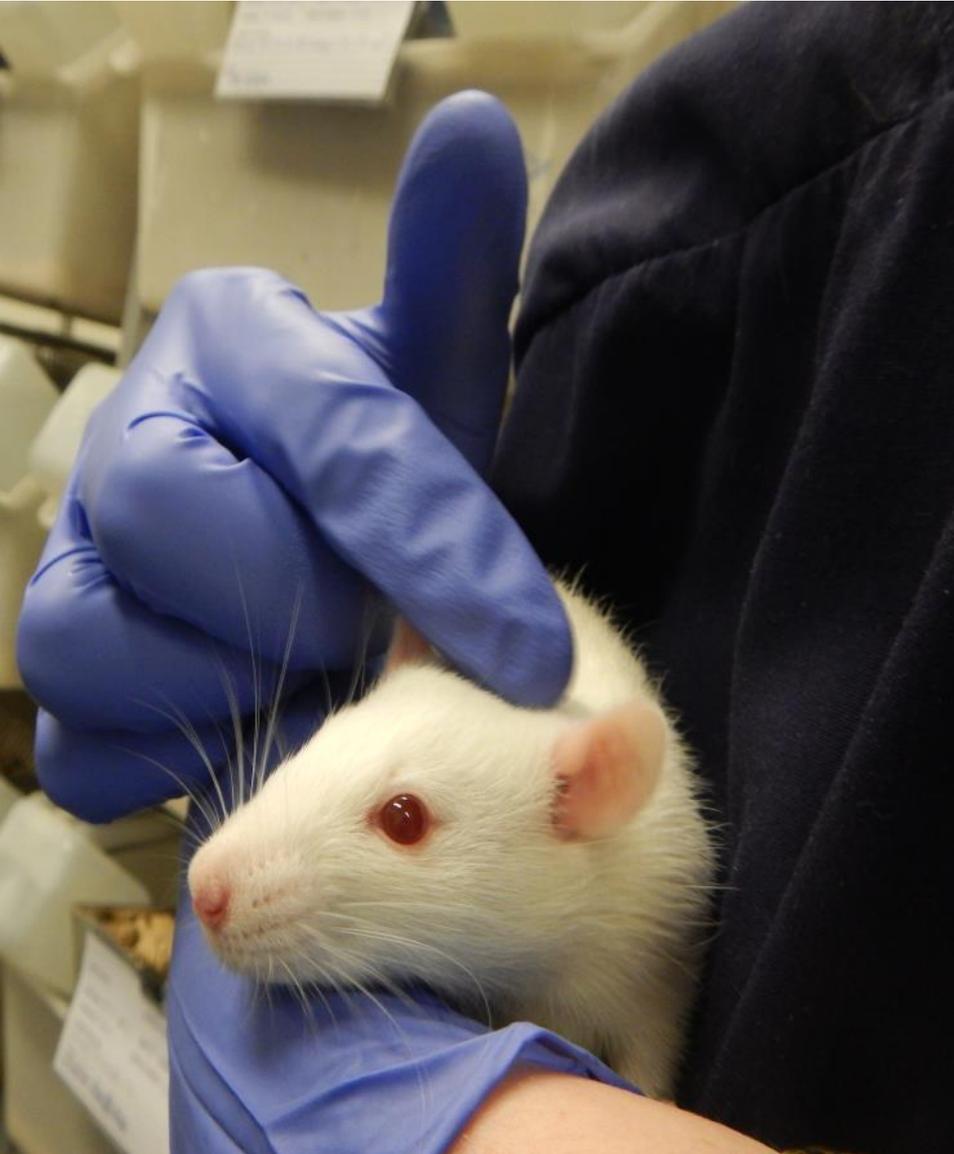


Supported by
welcometrust

Developing a collaborative agenda for humanities and social scientific research on laboratory animal science and welfare

Emma Roe (Southampton), Gail Davies
(Exeter), Beth Greenhough (Oxford), Pru
Hobson-West (Nottingham), Rob Kirk
(Manchester)

Developing future agenda for Humanities and Social Scientific Research



- Review of social, economic and cultural issues informing lab animal science and welfare.
- Methods of a collaborative process
- Outcomes of a collaborative process.
- Conclusions.

Review of social, economic and cultural issues informing lab animal science and welfare.



- Tacit social contract between citizens, scientists and the state.
- Opinion polls show conditionality of public support – no alternatives, minimisation of harm, benefits to human/animal health.
- Relations between state, science and social trust are crucial to social acceptability of lab animal research; yet also contested and changeable.

Review of social, economic and cultural issues informing lab animal science and welfare.

- Social, economic and localized institutional factors influence the ability of those working within laboratory animal research and care to respond to new forms of regulation, ethical assessments, data practices and animal welfare science.
- We propose a crucial role for humanities and social science research in developing evidence to understand the influence of social, economic and cultural factors within practices of laboratory animal science, as well as in the wider public.

Aims of a collaborative process



- To create a shared research agenda for defining and prioritising interdisciplinary questions.
- To define questions amenable to study by the concepts and methods of the humanities and social sciences
- To identify areas where scientists and other stakeholders agreed that innovative interdisciplinary approaches could be productively applied.
- Mutual understanding and trust between different research communities, especially at the interface between science and policy.

- Gail Davies, Department of Geography, College of Life and Environmental Sciences, University of Exeter, Exeter, United Kingdom
- Beth Greenhough, School of Geography and the Environment and Keble College, University of Oxford, Oxford, United Kingdom
- Pru Hobson-West, Centre for Applied Bioethics, School of Veterinary Medicine and Science, University of Nottingham, Leicestershire, United Kingdom
- Rob Kirk, Centre for the History of Science, Technology and Medicine (CHSTM), Faculty of Life Sciences, University of Manchester, Manchester, United Kingdom
- Ken Applebee, Biological Services, Health Schools, King's College London, London, United Kingdom
- Laura Bellingan, Society of Biology, Charles Darwin House, London, United Kingdom
- Manuel Berdoy, Biomedical Services, University of Oxford, Oxford, United Kingdom
- Henry Buller, Department of Geography, College of Life and Environmental Sciences, University of Exeter, Exeter, United Kingdom
- Helen Cassaday, School of Psychology, University of Nottingham, University Park, Nottingham, United Kingdom
- Keith Davies, Joint Biological Services, College of Biomedical and Life Sciences, Cardiff University, Cardiff, United Kingdom

- Daniela Diefenbacher, Society of Biology, Charles Darwin House, London, United Kingdom
- Tone Druglitrø, TIK – Centre for Technology, Innovation and Culture, Faculty of Social Sciences, University of Oslo, Oslo, Norway
- Maria Paula Escobar, Department of Geography, King's College London, London, United Kingdom
- Carrie Friese, Department of Sociology, London School of Economics, London, United Kingdom
- Katrin Herrman, Institute of Pharmacology and Toxicology Department of Veterinary Medicine, Freie Universität Berlin, Berlin, Germany
- Amy Hinterberger, Department of Sociology, University of Warwick, Coventry, United Kingdom
- Wendy Jarrett, Understanding Animal Research, London, United Kingdom
- Kimberley Jayne, Centre for Research in Animal Behaviour, Psychology, University of Exeter, Exeter, United Kingdom
- Adam M Johnson, Biological Services Facility (BSF), Faculty of Life Sciences, University of Manchester, Manchester, United Kingdom

- Elizabeth Johnson, Department of Geography, College of Life and Environmental Sciences, University of Exeter, Exeter, United Kingdom
- Timm Konold, Animal Sciences Unit, Animal and Plant Health Agency Weybridge, Addlestone, United Kingdom
- Matthew Leach, School of Agriculture, Food & Rural Development, Newcastle University, Newcastle upon Tyne, United Kingdom
- Sabina Leonelli, Exeter Centre for the Study of the Life Sciences (Egenis) & Department of Sociology, Philosophy and Anthropology, University of Exeter, Exeter, United Kingdom
- David I Lewis, School of Biomedical Sciences, Faculty of Biological Sciences, University of Leeds, Leeds, United Kingdom
- Elliot Lilley, Research Animals Department, Science Group, RSPCA, Wilberforce Way, Southwater, West Sussex, United Kingdom
- Emma Longridge, Biotechnology and Biological Sciences Research Council (BBSRC), Swindon, United Kingdom
- Carmen McLeod, Centre for Applied Bioethics, School of Veterinary Medicine and Science, University of Nottingham, Leicestershire, United Kingdom
- Mara Miele, School of Planning and Geography, College of Art, Humanities and Social Sciences, Cardiff University, Cardiff, United Kingdom
- Nicole Nelson, Department of the History of Science, University of Wisconsin—Madison, Madison, Wisconsin, United States of America

- Elizabeth Ormandy, UBC Animal Welfare Program, Vancouver, BC, Canada
- Helen Pallett, School of Environmental Sciences, University of East Anglia, Norwich, United Kingdom
- Lonneke Poort, Faculteit of Law, VU University, Amsterdam, The Netherlands
- Pandora Pound, School for Social and Community Medicine, University of Bristol, Bristol, United Kingdom
- Edmund Ramsden, School of History, Queen Mary, University of London, London, United Kingdom
- Emma Roe, Department of Geography and Environment, University of Southampton, Southampton, United Kingdom
- Helen Scalway, Independent artist; Honorary Research Associate, Geography Department, Royal Holloway, University of London, London, United Kingdom
- Astrid Schrader, Department of Sociology, Philosophy and Anthropology, University of Exeter, Exeter, United Kingdom
- Chris Scotton, Institute of Biomedical and Clinical Sciences, University of Exeter Medical School, Exeter, United Kingdom
- Cheryl Scudamore, Mary Lyon Centre, MRC Harwell, Harwell, United Kingdom
- Jane Smith, Faculty of Science, The Open University, Milton Keynes, United Kingdom
- Lucy Whitfield, Named Veterinary Surgeons Group, Royal Veterinary College, London, United Kingdom
- Sarah Wolfensohn, School of Veterinary Medicine, University of Surrey, Guildford, Surrey, United Kingdom

Outcomes of a collaborative process

- 30 questions.
- The research questions produced reflect the considerable and collective efforts of all participants.
- Four Themes:
 - Changing contexts in Science and Policy
 - Cultures of Animal Care
 - Public Attitude and Engagement
 - Ethical review and Replacement, Reduction and Refinement (3Rs) in Animal Research.



Changing contexts in Science and Policy (1 of 2).

- How are moves towards open science, data accessibility and greater transparency influencing research design and practices in laboratory animal research?
- In what contexts do the practices and governance of animal research become responsive to change (e.g. in the context of new technologies and emerging risks), and how can these inform the development of better regulation?
- What are the drivers for, and implications of, international circulations of expertise in relation to changing national practices and policies of laboratory animal science?
- How does, and could, attending to animal welfare generate different forms of value (e.g. research innovations, economic opportunities, social acceptability) for different groups?

Changing contexts in Science and Policy (2 of 2)

- How is the credibility of animal models and non-animal alternatives constructed, decided upon and challenged in different contexts?
- What factors (e.g. scientific, animal welfare, economic, political) influence the sourcing, breeding and transportation of animals in laboratory animal research and use?
- In what ways have legislative categories that offer enhanced protection to some species over others, shaped and been shaped by attitudes to and uses of animals in research?
- How do species categories and characteristics get used and amended as indicators of *sentience* within animal research and care practices?

Cultures of Animal Care

- How can a *culture of care* be defined, what does it look like in institutions where it is functioning well, and what factors enable or constrain its development?
- How, and with what implications, does the practice and understanding of *a culture of care* differ according to personal, professional, institutional and other contexts?
- How can animal care staff and other individuals be supported or empowered to improve good welfare practices and policy, and what are the institutional and other barriers to realising this?
- What is the significance of *emotional labour*, and the potential for processes of de/sensitization, for developing a *culture of care* and sustaining animal care as a profession?
- How can innovations in practices of care be fostered within and across local, national and international contexts?
- How do recruitment strategies and motivations for entering the animal care profession impact upon a *culture of care*?
- How do the emotional, embodied and affective relations between animals and people shape animal research and care practices?

Public Attitude and Engagement

- Where are the opportunities for greater and meaningful public and stakeholder engagement in the policy and practices of animal research?
- What, and in what contexts, do different publics want to know about animal research?
- How do peoples' life experiences and other factors (e.g. profession, religion, health, pet-keeping) influence attitudes and behaviours around animal research?
- What factors influence the construction of trust around animal research in diverse publics?
- What is the influence of primary, secondary and tertiary education on people's attitudes to the use of animals in education and research?
- How do understandings of animal experience and personal motivation influence public attitudes towards the use of animals in research and how does this compare to other sectors (e.g. agriculture)?

Ethical review and replacement, reduction and refinement (3Rs) in Animal Research

- How do harm-benefit assessments of proposed animal research involve the contributions from different roles, knowledges and ethical positions, and how are these resolved in practice?
- How is the promissory discourse around the *translation* of animal research to humans influencing practitioner, policy-maker and public understandings of harm-benefit analysis?
- What are the consequences for laboratory animals, researchers and animal care staff of the new EU requirement to record the actual (as opposed to predicted) severity of procedures?
- How do harm-benefits assessments vary according to the use of animals for different permissible purposes (e.g. basic research, treatment of disease, animal welfare, species preservation)?
- What factors shape the format, content and communication of decision-making in the ethical review of animal research in different contexts?
- In what ways have the 3Rs been taken up and interpreted in different national contexts?

General Discussion



- Open-minded, transparent, accountable way of working.
- Questions emerged in novel ways.
- No discipline dominated.
- Specialised language reflected concepts and practices important to them. Potential variability in meaning.
- Emphasise need for empirical studies across laboratories and across countries to fully understand the increasingly globalised context.
- How relations change over time.
- This process strengthens studies suggesting humanities and social science scholars can make important contribution by facilitating reflection on scientific practices within, as well as outside of scientific community.

Conclusions



- Need to generate and prioritise research questions that effectively get to the heart of the social and ethical issues, and address the dilemmas and challenges faced by laboratory animal stakeholders.
- The questions resulting from the process are a credible research and funding agenda going forward.
- Encourage future empirical projects which demonstrate the social, economic and cultural interactions that influence responses to new scientific research and regulation, within and outside of the scientific community.
- Therefore we predict that future social science research will be able to provide greater understanding of how biomedical research, using animals, succeeds or fails to become credible with the public.