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UK Animal Welfare Research Network

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The UK Biotechnology and Biological Sciences Research Council (BBSRC) has funded a new Animal Welfare Research Network (AWRN) to bring together animal welfare researchers, those working in related fields, and other professionals with an interest in animal welfare including representatives from industry, charities and government. The core aims of the AWRN are to foster enhanced collaboration within the UK animal welfare research community, and with other relevant disciplines, to facilitate mentoring and training for early career researchers and seek new ways of supporting welfare researchers at all career stages, and to encourage interaction between researchers and stakeholders to identify gaps and opportunities for joint-working and promoting the impact of research outcomes. Over £100,000 has been provided by BBSRC to fund the AWRN for 3 years in the first instance, and it will be managed by a Coordinating Group of animal welfare researchers led by Professor Michael Mendl from Bristol University.

Animal welfare is of high societal importance. In an EU survey, 34% of approximately 29,000 citizens rated the protection of welfare in farmed animals as being of the very highest importance, and within the UK this proportion was 38% (EU 2007). Britain has a strong tradition of animal welfare research that dates back to the Brambell Committee's (1965) parliamentary report on the welfare of livestock kept under intensive conditions which, in turn, was prompted by Ruth Harrison's (1964) book *Animal Machines*, an investigation into the rise of modern intensive farming methods.

Animal welfare research is, therefore, a relatively new discipline. It uses fundamental underpinning science in studies that aim, for example, to create new and more accurate ways to scientifically assess welfare or to increase our understanding of the biological responses of animals to challenges. At the same time, strategic science studies that focus on applying findings and developing ways of implementing change and improving welfare in the real world (e.g. on farm) are also an important part of the discipline. Animal welfare researchers work with a range of species including farm, laboratory, companion, zoo and even wild animals.

An important objective of the AWRN is to promote greater interaction within the animal welfare research community via meetings, workshops and exchange of researchers, so as to increase cohesion, awareness of the broad scope of work that is being carried out, and amalgamation of complementary skills in basic and applied research. A related objective is to create opportunities for research students and early career researchers to meet peers and colleagues, establish their own cross-institute activities, and to receive training from research groups with different expertise, including in research areas currently outside the welfare envelope.

Animal welfare researchers traditionally come from a range of backgrounds including biology, veterinary science, agricultural science, psychology, ethics, economics, and philosophy. However, advances in fields such as genomics, neuroscience, computer science, epidemiology and social science can be highly relevant to animal welfare research too. For example, computer-vision methods are starting to be used to automatically monitor animal behaviour and detect welfare problems (e.g. Dawkins and others 2012). Another objective of the AWRN is therefore to use

symposia and workshop events to increase interaction and collaboration with researchers in other disciplines in order to develop new ways of assessing and improving welfare.

It is hoped that these activities will enhance cross-institutional partnerships, generate teams that can compete more effectively for national and international research funding, and develop new collaborative research programs that contribute both high quality basic science and real-world impact.

Welfare considerations often dovetail with those of the communities that manage and use animals. For example, improvements in welfare will generally be accompanied by better growth and reproduction, and animals with poor welfare are unlikely to be the best subjects to use in scientific research. However, there can be conflicts of interest, particularly when welfare improvements come with additional costs to the user. Moreover, there may be external pressure for changes that actually threaten animal welfare, a current example being the potential for concerns about global food security to drive renewed intensification of livestock production (Garnett and others 2013). Animal welfare research can help to tackle some of these issues, especially if it is informed by constructive engagement with stakeholders such as animal users and producers, animal charities, and government and policy makers. An important objective of the AWRN is, therefore, to bring together stakeholders and researchers to pinpoint timely research topics and gaps in existing knowledge, and to identify how research findings can be implemented effectively alongside the economic, political and societal considerations that surround our use of animals.

As well as having clear practical implications, animal welfare research tackles some of the most intriguing and challenging questions in modern biology. How can we measure the emotional states of other animals – a key determinant of welfare being the experience of states such as pleasure, pain, fear, and anxiety? Which species are likely to have the capacity for conscious feelings? Are animals able to empathise with the experiences of others? A final major objective of the AWRN is to develop a public-facing website to explain how these and other questions can be addressed scientifically, to provide examples of the most exciting ongoing animal welfare research, and to promote the strength and successes of UK animal welfare research as a discipline that genuinely, and unusually, spans from basic science to real-world application.

An AWRN website will be built in 2016. Readers who are interested in finding out more about the AWRN or in becoming a member can email: awrn-manager@bristol.ac.uk

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