



UNIVERSITIES FEDERATION FOR ANIMAL WELFARE

The Old School, Brewhouse Hill, Wheathampstead, Hertfordshire AL4 8AN, UK.

Tel: +44(0)1582 831818 Fax: +44(0)1582 831414

Website: <http://www.ufaw.org.uk>

Email: ufaw@ufaw.org.uk

MEDIA RELEASE

UFAW awards research scholarship to develop lifetime animal welfare assessment tools

The Universities Federation for Animal Welfare (UFAW) has awarded a Research Training Scholarship to Elena Armstrong of Newcastle University. The three-year programme of research at doctorate level will investigate a novel approach to “welfare markers” used to assess the wellbeing of food animals.

The welfare of food animals is a high-profile public concern and as the numbers of animals reared for food increases, driven by the growth in the world’s population, there is an increased need to ensure the health and welfare of these animals. This particularly applies to poultry as the fastest-growing sector of meat production and consumption worldwide.

Under the supervision of a team of researchers led by Dr Tom Smulders and comprising Drs Tim Boswell and Jonathan Guy (also of Newcastle University) and Vicky Sandilands (Scotland's Rural College) Elena will investigate the lifetime welfare of chickens by testing whether changes in the birds’ brains reflect their levels of stress.

The aim of the research project is to deliver a useful measure of the welfare of food animals in different production systems, both to confirm that products being sold as “high welfare” originate from animals with an actual higher welfare status, and to assess the welfare implications of any new husbandry methods. The neuroscientific approach has been inspired by extensive literature on human mood disorders and investigations will focus on the one organ profoundly affected by chronic stress – the brain, and biomarkers which indicate chronic stress.

Changes in the hippocampus, an area of the brain important for learning and memory, appear to be related to stress over the lifetime of animals. The team aim to characterise changes which occur in the hippocampus of stressed animals, including generation of new neurons as well as molecular markers of inflammation, which are thought to be related to stress and potentially to mood disorders. These changes will then be quantified in commercial laying hens and broiler chickens housed under different conditions, offering the potential to test whether higher welfare housing which provides more space or environmental enrichment reduces stress markers over the lifetime of the birds. These parts of the study will be carried out with the collaboration of commercial producers - allowing the researchers to test their theory in the ‘real world’ and to identify which housing systems offer the highest welfare.

SCIENCE IN THE SERVICE OF ANIMAL WELFARE

Chief Executive and Scientific Director: Robert C Hubrecht OBE BSc PhD FSB

Secretary: Jane Moorman

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Among UFAW's top priorities is the promotion and support of high quality science that will lead to substantial advances in animal welfare. UFAW's Chief Executive, Dr Robert Hubrecht, said: We wish Elena every success with this research and hope that the project which is aimed at finding markers that integrate welfare experiences over time will be significant in improving animal welfare."

Said Elena: "We are taking a new approach to obtaining a sensitive measure, complementary to existing measures, by applying neuroscientific knowledge and techniques to develop molecular indicators of welfare status in the brain. Although poultry will form the basis of the research, it should be emphasised that this approach has far wider implications and any positive outcomes could facilitate the development of similar welfare assessment tools across all species of farm, zoo and companion animals."

Further information about UFAW's range of grants and awards can be found on www.ufaw.org.uk .

Ends

23 May 2016

Media contact: Dr Robert Hubrecht, Chief Executive and Scientific Director, UFAW. Tel: 01582-831818, email hubrecht@ufaw.org.uk

Note to editors:

The Universities Federation for Animal Welfare (UFAW) is an internationally recognised, independent scientific and educational animal welfare charity. It works to improve knowledge and understanding of animals' needs in order to achieve high standards of welfare for farm, companion, research, captive wild animals and those with which we interact in the wild.

UFAW improves animal welfare worldwide through its programme of awards, grants and scholarships; by educational initiatives, especially at university and college level; by providing information in books, videos, reports and in its scientific journal *Animal Welfare*; by providing expert advice to governments and others, including for legislation and 'best practice' guidelines and codes; and by working with animal keepers, scientists, vets, lawyers and all those who care about animals.

This work relies on the support of members, subscribers and donors.

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