

## SPECIAL SESSION

### Progress in Assessing Animal Welfare in Relation to New Legislation: Opportunities for Behavioural Researchers

Chair: Penny Hawkins

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#### Abstract

The need for effective assessment and retrospective review of laboratory animal welfare, including recognition of pain, suffering or distress, is recognized in many laws and guidelines that regulate animal use. For example, the US Institute for Laboratory Animal Research (ILAR) *Guide* emphasizes the importance of post-approval monitoring that includes regular review of adverse effects, and the new European Union (EU) Directive that regulates laboratory animal care and use requires retrospective assessment and reporting of the level of suffering experienced by animals.

Accurately recognizing, recording, analyzing and reporting animal behaviors are all important in order to conduct a proper retrospective assessment of the level and nature of suffering, and behavioral researchers are clearly in an especially good position regarding the ability to achieve this. They have also contributed greatly to our knowledge of behaviors associated with negative states, such as discomfort, pain, anxiety and distress – and positive wellbeing – in a wide range of species, as well as to the development of accessible techniques for observing and monitoring animals. Increased dialogue between behavioral researchers and those working in other fields would therefore be helpful in improving the standard of assessments of laboratory animal behavior. The outcome would be not only better animal welfare, but also better science, as it is now very widely recognised that avoidable suffering can lead to experimental confounds, for example due to physiological responses to stress.

This symposium will explore how researchers using and developing behavioral recognition and monitoring techniques are contributing towards improving the understanding and interpretation of animal behavior, particularly relating to the assessment of animal welfare and suffering.

#### SPECIAL SESSION CONTENTS (sorted by paper ID)

##### Introduction from Chair

Penny Hawkins (Research Animals Department, RSPCA, UK)

##### The Assessment of Pain using Facial Expressions in Laboratory Rodents

Matt Leach (University of Newcastle, UK)

##### Monitoring Burrowing and Nest Building Behavior as Species-specific Indicators of Animal Wellbeing

Paulin Jirkof (University of Zürich, Switzerland)

##### Recognising and Assessing Positive Welfare: Developing Positive Indicators for Use in Welfare Assessment

Wanda McCormick (Moulton College, UK) (sponsored by Noldus Information Technology bv)

##### Measuring Behavioral Changes to Assess Anthropogenic Noise Impact in Adult Zebrafish (*Danio rerio*)

Hans Slabbekoorn (University of Leiden, The Netherlands)

##### Automated Assessment of Animal Health and Wellbeing

Johanneke van der Harst (Delta Phenomics, The Netherlands)