Workshop
Etica, Benessere animale e 3R

Poster

Adaptive evolution and individual ontogenetic trajectory: the biological dimensions of welfare

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Since Ruth Harrison's 1964 book "Animal Machines" and its profound impact on public opinion and quality of life of farmed animals, scientific research on animal welfare expanded to other captive settings such as laboratories and zoos. Multiple conceptual frameworks have been produced and shared in attempt to define the complex concept of animal welfare, as well as different philosophies and scientific approaches to assess it and improve it. No matter what the emphasis was put on (e.g., the basic health and biological functioning, the natural living conditions, or the affective states of the animals), the more scientific research was carried on, the more progressively arose the concept of welfare as an emergent property of the "animal system". As such, welfare may be differently perceived by each individual, as the expression of the combination between its species-specific morpho-anatomical, physiological, and behavioral adaptations, together with its ontogenetic trajectory and experiential life, combining genetics with epigenetics, and species-specific with individual needs. With the more recent "Five Domains Model" scientists were prompted to focus on the core of an animal welfare state, that is its mental state. In this talk I will discuss the importance of experience, of emotions, of opportunities of choice and control over the environment, as determinants on animal welfare and management. In fact, animals in captivity too often face a mismatch between their evolved adaptations and the challenges of their current circumstances. Emphasis will be also given to the lexicon used in the study of welfare, of its evocative and often misleading power.

Joining the Italian Animal Welfare Bodies Network: a simple way to improve animal welfare

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Launched by the National Committee for the Protection of Animals used for Scientific Purposes (CNPA), the Italian Animal Welfare Bodies network (CIO) started in January 2025 and currently comprises 84 AWBs from academic, private, and public research institutions. CIO is supported by a steering committee composed by 9 representatives (3 from North Italy, 3 from Centre Italy and 3 from South Italy) and meets annually with the CNPA focusing on promotion of the 3Rs; providing topics of discussion and clarification to competent authorities; dissemination of good practices; facilitating information exchange to ensure a harmonized approach at the national level; offering guidance on specific topics related to animal welfare.
Here we present the experience of three AWBs from different institutions that have decided to join CIO.
Since 2019 the University of Trieste houses a barrier facility to maintain pathogen-free animals, improve animal well-being and ensure reproducible experimental data. SPF housing conditions with limited access to authorized personnel only make it necessary to improve best practices and procedures for integrating skills, knowledge and competence of all the professional figures involved.
Vetspin performs safety and efficacy studies in different animals for food production, including poultry, rabbits, pigs and cattle. To meet the requirements for all these species it's a challenge, as for every one of them very different installments, feeding, climate conditions, enrichments, and management is necessary due to their different age and weigh. All of them are like a different species with regard to the behavior and the needs to guarantee their safety and well-being.
The IRCCS Santa Lucia Foundation performs basic and translational research studies in the field of neuroscience with the use of laboratory animals, especially transgenic models of disease (eg, models of Alzheimer's, Parkinson's, Muscular Dystrophy, ALS, etc.) with very different management needs. It is therefore necessary to have a broad and varied knowledge of their physiological and behavioural needs. In addition, in keeping with the 3Rs principle, whenever possible, studies are first conducted using transgenic strains of Drosophila melanogaster (Meigen, 1830) before moving on to murine strains.
The recent settlement of the Italian AWBs network demonstrates the perceived need for a coordinated national approach, offering useful insights and practical tools for the affiliated AWBs.