9th International Conference on

ALZHEIMER'S DISEASE & DEMENTIA

October 16-18, 2017 | Rome, Italy

The role of animal models in neuropsychiatric research

Tejkalová Hana[1], František Jelínek[2], Jan Klaschka[3] and **Jiří Horáček[1]**
[1]National Institute of Mental Health, Czech Republic
[2]Veterinary Histopathological Laboratory, Prague
[3]Institute of Computer Science of the Czech Academy of Sciences, Czech Republic

At present, animal models are viewed as useful and widespread tools in translational neuroscience research and CNS drug development. To mimic brain pathogenesis and the spectrum of quantifiable disease endpoints in human neurodevelopmental disorders many model studies are done, using mainly rodents. We can evaluate many patterns in the ethogram exhibited by the species used in specific experimental situations. It has recently become increasingly important to develop translational models that enable multiple behavioural domains to be explored in parallel together, combined with other data obtained from various animal tissues to evaluate useful biochemical and morphology analyses. The results of these translational models depend on well-defined requirements for animal models that take into account the ethological approach, the biology of experimental animals used, the life history of individuals and many other factors in order to produce a good project with valuable data. Alzheimer disease (AD) is characterized by gradual cognitive decline, sensory and motor deficits and is the primary cause of dementia. To examine the role of early neuroinflammation in neurodevelopmental diseases, a translational model with neonatal subchronic lipopolysaccharide (LPS) insult was used. Our finding suggests that LPS may have long-lasting effects on the future development of behavioural parameters together with altered morphological markers. Animal models of neuropsychiatric and neurology disorders are indispensable tools for studying target key neurobehavioural domains of these diseases and help to provide better insights into the complexity of brain functions, brain pathogenesis and find novel biomarkers and therapies.

Biography

H Tejkalova obtained both her degree at the age of 24 and her later PhD. from the Faculty of Science, Charles University in Prague. She is a senior researcher at the National Institute of Mental Health (NIMH). She has published nearly 50 papers in reputed journals (total citations 177, inc. self-citations). Her research activities involve the use of behaviour in the animal modelling of psychiatric disorders, especially schizophrenia. She also acted as the Czech representative in FELASA from 2010 until 2014.

hana.tejkalova@nudz.cz

Notes:

J Alzheimers Dis Parkinsonism, an open access journal
ISSN: 2161-0460

Dementia 2017
October 16-18, 2017

Volume 7, Issue 6 (Suppl)

Page 47