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## Analysis of behaviour chart in wistar rats fed with different standard diets

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The aim of this study was to assess behavior chart of wistar rats fed with high and low protein standard pellet diets. The first (n=10) and the second (n=10) group of rats received *ad libitum* standard diet containing 19.91% and 21.50% crude protein, respectively, over the period of one year. The animals were individually housed in laboratory cages under standardized environmental conditions (temperature  $22\pm 2^{\circ}\text{C}$ , relative humidity  $50\pm 10\%$ , 12 h light-dark cycle). Rat's behavior was analyzed by assessing 12 video segments (walking, climbing, immobility, immobile sniffing, head dip, front paw licking, hind paw licking, face grooming, body grooming, rearing, eating and drinking) of ethogram. The average daily consumption of feed and water did not differ between the groups. Obtained results indicated that different protein level in diets has negative effect on behavior in rats. Activities in walking, climbing, face and body grooming significantly decreased from 3 to 4 times in group II, than in group I. Furthermore, in rats fed with high protein content diet ears and vibrissae movements decreased by 5.35%, lethargy occurred more frequently (12.11%) and small tumors under the skin in various regions of the body were observed. The present findings display that higher protein level in diet demonstrates behavioral reductions and probably stimulates tumor incidence. This fact is significant for scientists using rats as an experimental animals in veterinary or biomedical research.

### Biography

Zymantiene J is the Head of the Department of Anatomy and Physiology at Lithuanian University of Health Sciences. Her current research interests are animal physiology, nutrition and welfare. She is author and co-author of more than 38 scientific publications, 22 popular research articles and 22 academic books. She is a member of Lithuanian Ethical Committee on the use of experimental animals under State Food and Veterinary Service, Lithuanian Physiological Society and Lithuanian Scientific Society.

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