

## **Abstract**

Time and spatial information are always two inseparable entities because if anyone moves in space it also moves in time. However, spatial orientation is much more investigated than interval timing. Time perception is for survival of the individual also very important and it probably works together with spatial perception. Despite this, only a few researches have been focused on this topic and therefore we aimed on evolving a new task which would test use of both of these informations and interaction between them.

This new version of AAPA task was tested on Carousel Maze where we usually test only spatial orientation and memory. However, we added also a timing part to our version of the task because we assume that in this task when we turn off the light the rats have to use more interval timing than spatial information. Next part of the task included application of drugs which should compromise timing strategies. We have demonstrated use of different strategies when animals are in darkness and light whereby parts in light depend on spatial orientation and parts in darkness depend more on timing strategies. The drugs didn't disrupt rat's abilities which can be caused by very complex design or by inappropriately chosen doses.

## **Key words**

time perception, spatial navigation, cognitive function