

## Abstract

Swimming is an inborn reflex in rats. It represents a complex motor behaviour, which changes significantly throughout the postnatal developmental period. In the current study, development of swimming behaviour was studied using a group of rat pups aged between P5 - P21. A protocol for assessment of swimming in the rat was developed based on literature studies and the results of our own observation on rat swimming. The experiments were conducted using a tank 50x15x30cm, filled with water at 24°C, in which each pup is left for 1 minute or less, if it sinks to the bottom. Swimming was assessed using the following developmental markers: sinking, floating, nose position and swimming movements of the limbs. To study the effect of GABAB receptors ligands on the development of swimming behaviour, three groups of pups aged between P12 – P32 were injected intraperitoneally either physiological solution or 3 mg/kg GABAB receptors antagonist CGP 46381 or 3 mg/kg GABAB receptors agonist baclofen, daily between P7 and P11. Results showed that neither CGP 46381, nor baclofen, alters the development of swimming behaviour compared to a control group.