This diploma thesis is focused on animal play behaviour, it's features and factors that influence it. It also shows how play can be used as an animal welfare indicator and moreover that play may also improve welfare. Play is interesting from physiology and neurology point of view as well because it is able to trigger positive emotions. This thesis also describes the main hypotheses explaing evolutionary functions of play. The newest hypothesis claims that play may be a "training for the unexpected" (Špinka et al., 2001).

Our experiments tested this hypothesis. We investigated if play of piglets before weaning could improve their coping with stress and reduce agonistic behaviour after weaning and later in life.

Results show that play in an extra space before weaning does not influence pig's behaviour very much, but it seems to have some impact. Results also show other factors influencing agonistic behaviour of pigs – groupsize, gender and weight gain.