**Layman abstract**

Sensory processing raised interest in autism research with the most recent classification systems. Sensory selectivity describes an automated filtering of incoming information by the brain. This mechanism has been explored by electroencephalography (EEG) and showed a different functioning in ASD. A specific brain-stem system (Locus coeruleus – norepinephrine system) might be an underlying cause that can be assessed with pupillary responses. The goal of the present research project is thus to relate pupillary responses to EEG measure of sensory selectivity. This will be investigated in an auditory oddball task that has been applied in EU-AIMS LEAP (wave 1).