The facial part of the head of the embryo is formed alongside with the brain from the same precursors. The face is formed from the neural crest cells, which arise from the neuroepithelium. This means that if there is some kind of disruption in the early development of the brain, it will be shown in the face. The neuroepithelium induces the expression of many important genetic factors for the formation of the face. For example *PAX3, Dsl-1, HMGN1*. However, environmental factors also have an impact on the final look of the face. The environmental factors are for example diet or the way of breathing.

Persons with the syndromatic psychic disorders have well known and researched facial morphology compared to persons with asyndromatic psychic disorders such as schizophrenia, ASD, OCD and bipolar disorder, which are still the object of many studies.

Genetic factors that have an impact on facial dysmorphology, are usually genes that have their main role in the central nervous system or they indirectly impact through signalling pathways on other genes, which are known to have an impact on the face such as *Fgf* genes. The goal of this thesis is to determine these genetic factors.