The human proteom diversity is caused by the ability of a single gene locus to encode more protein isoforms. The TCF/LEF genes produce a broad spectrum of protein variants, which consequently leads to a great functional diversity of the TCF/LEF proteins. The TCF/LEF transcriptional factors regulate the canonical Wnt signaling target genes. In this diploma project we focused on the Caenorhabditis elegans gene pop-1, the ortholog of the TCF/LEF genes. Using the Northern blot analysis we tried to identify alternative isoforms of the pop-1 mRNA in C. elegans. Using quantitative RT-PCR we also analyzed the pop-1 mRNA levels.

Key words:
canonical Wnt signaling pathway, TCF/LEF transcription factors, Caenorhabditis elegans, pop-1