

Evaluation of the Diploma thesis

Differential Gene Expression Using Negative Binomial Model

Tereza Janáková

1- The Student Activity:

In the second semester the student showed quite good progress in her activity, especially after she returned back from her training in Germany in one of the Human genomic center.

Tereza Janáková had the courage to write her thesis in English language, where she needed to be introduced to the newest technology and learned about new bioinformatics tools and methods, this refers to her ability to face these challenges, although she often needed regular supervision in each step of her work.

2- The literature:

She described adequately the principles of genomic sequencing, concentrating on the Next Generation Sequencing and the applications of the RNA sequencing, without missing to describe the NGS Data formats. She wrote also about the statistical and biological models, which made the headlines in the literature part comprehensive.

But it was scientifically poor in some paragraphs, where few ideas were described more commercially.

3- The ability to solve the required problems:

The student showed good ability to solve the issues which appeared during her research, especially when she could find the correct complete human genome data for RNA reads alignment, without direct help from me.

4- Fullfill the tasks:

She achieved all the required tasks successfully. She determined the digital gene expresion of the samples and estimated the Negative Binomial distribution parameters of the differential expression signals, and figured out the up-regulated and down-regulated genes. Her results were congruent with the expected results of this research.

Layal Abo Khayal

2.6.2014