

BIODATA ANALYTICS

Educational, information and advisory services in the field of analysis of big biological and medical data

We offer **educational** and **advanced training courses** in the field of big biological and medical data analysis in the following disciplines:

- R Programming Fundamentals
- Biological and Medical Statistics
- Data Mining
- Genomic Data Analysis
- Analysis of Epigenomic Data
- Structural Organization of Chromatin and its Analysis
- Analysis of Transcriptomic Data
- Analysis of Single-Cell Sequencing
- An Introduction to Databases
- Biological and Medical Databases
- Big Biomedical Data Visualization

Offered courses are **practice-oriented**. Lectures and computer classes are conducted by teachers and scientists with **many years of experience** in educational and scientific work.

Participants of educational programs can be **undergraduates** and **graduate students**, as well as teachers, employees and medical workers of specialized Universities, Academic and Medical Institutions interested in improving and developing professional knowledge and skills. Upon successful completion of the educational course or full program, a **state-recognized certificate** can be issued.

We provide **outsourcing** services in the development of specialized software for **analysis big biological and medical data**.

Examples of successful software developments are R/C++ and Java packages *ORFhunteR* and *CelNetAnalyzer*.

ORFhunteR

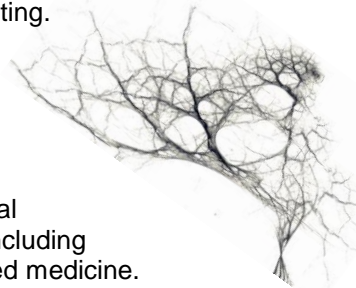


The **ORFhunteR** package is designed for automatic identification and annotation of open reading frames in large sets of human RNA sequences, including RNA molecules assembled from short reads of transcriptome sequencing data. This package is freely available at GitHub repository (<https://github.com/rfctbio-bsu/ORFhunteR>), Bioconductor (<http://www.bioconductor.org/packages/release/bioc/html/ORFhunteR.html>) or as Web application (<https://orfhunter.bsu.by>).

CelNetAnalyzer

The **CelNetAnalyzer** package is designed for topological analysis of large non-directional molecular networks of a cell. The package is available for non-commercial use as a free download archive (<http://bio.bsu.by/genetics/files/celnetanalyzer.7z>) containing the GUI version of software, source code, user manual and reference network for software testing.

The above and other software developments can be used in both fundamental and applied research, including modern and personalized medicine.



We are considering options for **consulting and outsourcing cooperation**. We provide assistance in the **analysis** of big biological and medical data, their **visualization** and **interpretation**. We work with data of high complexity (including unstructured, gaps and noise), an arsenal of analytical tools - from **standard statistical methods** to **machine learning algorithms**, visualization - in all its diversity.

You can **learn more** about our activities and initiatives by visiting website <https://biodata-analytics.sstcenter.com>

Please feel free to contact us if you need any further information:

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