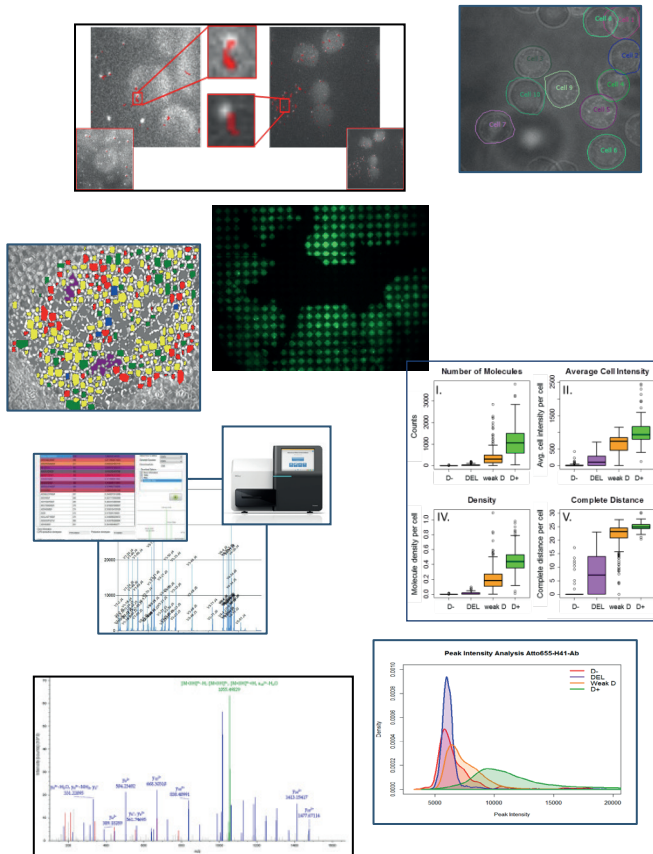


TIMED CENTER CORE FACILITIES BIOINFORMATICS AND IMAGE PROCESSING



Bioinformatics is an area within the scientific field of informatics. Its goal is to lay the foundation for the **administration and integration of biological data** and to develop different types of analyses for this special data.

Members of the research team bioinformatics at the *FH Upper Austria, Hagenberg Campus* develop **algorithms** and **intelligent software systems**. These programs help experts in life sciences (medical doctors, biologists, geneticists) to **analyze biomedical or molecular biological data**. Furthermore, they allow the **simulation of biological processes**.

The research group for bioinformatics has been working on various research and development projects for years – mostly with partners from science and industry. In the course of these cooperations, numerous algorithms and methods have been developed, for example:

- algorithms for the editing and evaluation of microscopic images
- methods to identify relationship patterns of biomedical data by means of applied statistics and machine learning
- sequence analysis programs
- analysis algorithms for proteomics for protein identification

Functions and Services

- » Function 1: Automated editing and analysing of microscopic images
- » Function 2: Identification of relationships in biological and medical data by means of applied statistics and machine learning
- » Function 3: Identification of peptides and proteins in mass spectrums
- » Function 4: Analysis of NGS data
- » Service 1: Spotty, a framework for analyzing microscopic images
- » Service 2: MS Amanda, an algorithm to identify peptides and proteins
- » Service 3: IMEX, a framework for the analysis of NGS data

 bioinformatics@timed-center.at