



BioAnalyst

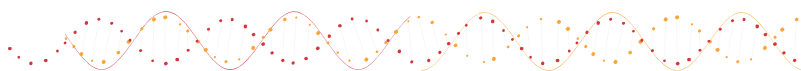
If there exist any logical relationships between properly selected physiological and biochemical parameters of the patients on the one hand and diagnosis on the other then it should be possible to find and identify these relations. This is the underlying idea of the **BioAnalyst** project.

Contemporary medical decisions are becoming more and more complex. Specialists have an unbelievable amount of new methods – laboratory or others – at their disposal, and it is hardly possible to register and keep in mind all these innovations. Similarly to other segments of human activity, the solution lies in computerization, or – better put – in its intelligent utilization.

We have developed a product for early screening and diagnostics specifically in those fields where the negative impact on the population is most serious: From cardiovascular diseases over carcinoma to steadily increasing number of diabetic patients. It is the speed and accuracy of diagnostics that is crucial for the solution of medical problems.



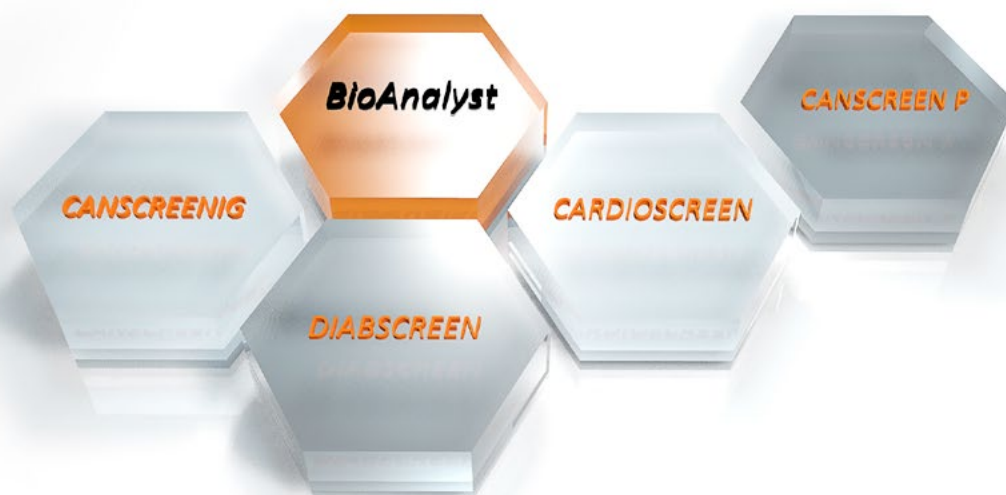
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BioAnalyst is a software tool for cluster analysis of data using logical relations between biochemical and physiological parameters obtained from the patients, and medical diagnostics.



1. Screening of prostatic cancer **CANSREEN P:**

- **PSA** – Prostate specific antigen, increases with prostatic carcinoma
- **fPSA** – Free fraction of prostatic specific antigen to be investigated when prostatic carcinoma is suspected; ratio of free fraction to total PSA content helps to distinguish between carcinoma and common prostatic hyperplasia
- **CRP** – C-reactive protein, inflammation marker, mostly comes with infections
- **Testosterone** – male sex hormone
- **Age**

2. Screening of carcinoma presence in body **CANSREEN G:**

- **Total protein** – Evaluation of nutrition condition, a very general test
- **Alpha1, alpha2, beta and gamma blood serum proteins**
 - Electrophoresis of blood serum proteins, used for separation of proteins into specific fractions in the electric field; indicates many diseases, e.g.: inflammations, liver diseases, some carcinomas, blood diseases and others
- **Age and sex**

3. Diabetic screening **DIABSCREEN:**

- **Sugar and keton urine test** – Oral glucose tolerance test, diagnostics of diabetes
- **Age and sex**

4. Screening of cardiovascular system condition **CARDIOSCREEN:**

- **Cholesterol** – Indication of vascular complications risk, risk of infarction and of stroke (ictus)
- **HDL** – High-density lipoprotein, improving the test of infarction and stroke risks (colloquially „good cholesterol“)
- **LDL** – Low-density lipoprotein improving the test of infarction and stroke risks (colloquially „bad cholesterol“)
- **Systolic blood pressure**
- **Diastolic blood pressure**
- **Age and sex**
- In order to improve the evaluation, analysis of PPG-curve can be added **CARDIOANALYST**

We believe that early indication of a disease is crucial for efficient treatment and/or for elimination of the problem cause. We pursue the development of the tool that will be able to facilitate the difficult task of diagnostics and of establishing the most effective medical treatment.

