Active Homeostasis Control and Local Chromosomal Aberrations Search Software

METAPATHIA (c) GR HUNTER ®

Institute of Practical Psychophysics

Metapathia©-GR
HUNTER

Psychophysical Investigation Program
User Manual
TT 7872-4012

Moscow 2006

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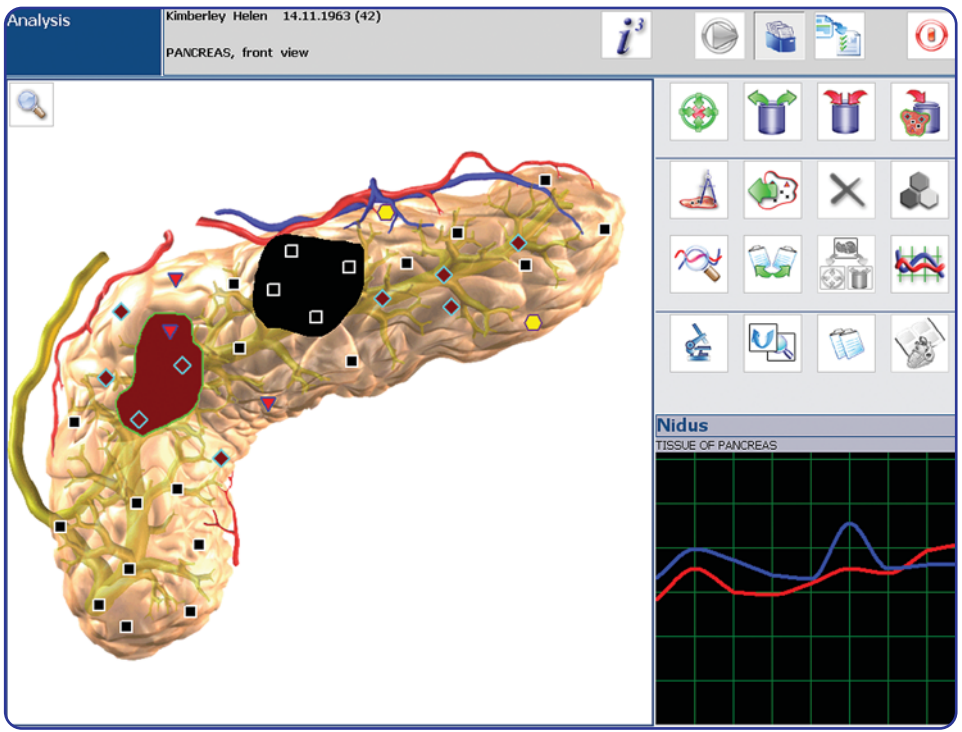
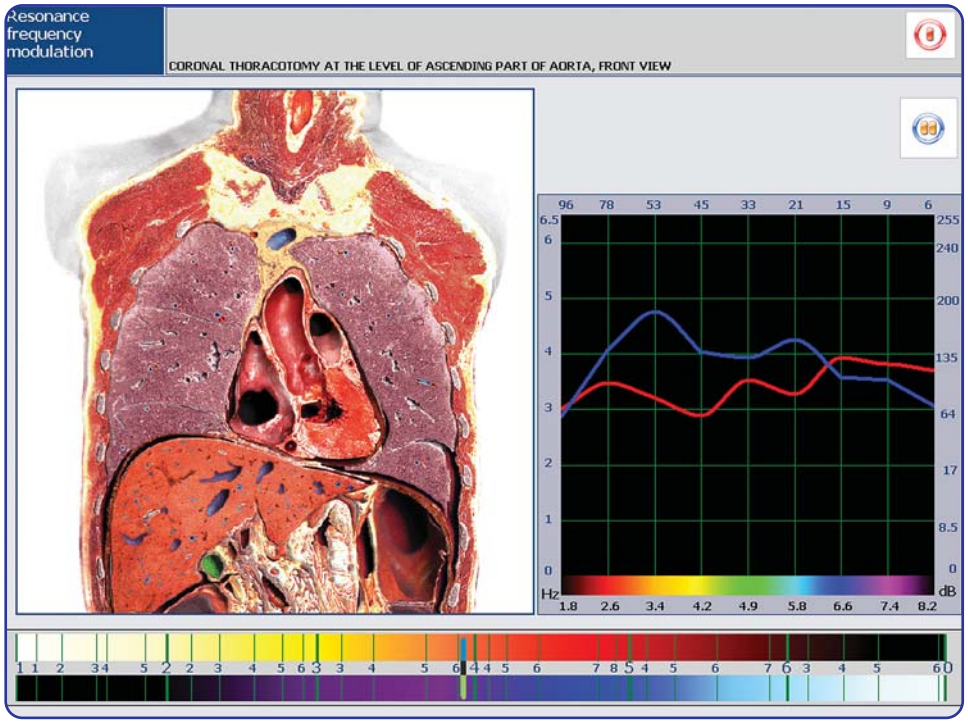
Contents:

The Institute of Practical Psychophysics has produced an analogue-free investigation system, which makes it possible to trace any conditions in the body through changes in the wave characteristics of tissue, individual cells, chromosomes and even separate ferments and hormones. Non-linear analysis systems (NLS) are the most advanced information technologies available in this century and can be considered the most remarkable and advantageous accomplishment of modern natural science. The diagnosis equipment is based on the spectral analysis of the vortex magnetic field of any biological object. It is quite unique and unparalled in the world today. Numerous experiments performed at the Institute of Psychophysics confirm a close relationship between the vortex magnetic fields and biological systems with these fields being used in biological systems as a means of extra - and intercellular interaction. The vortex magnetic fields play an important part in information transfer and interaction with the various biological systems. How do biological systems recognize and isolate the necessary information from the background noise and in what manner do extra and intercellular communications take place?

The research carried out on the energy fields around plants and animals, by the Institute has concluded that there exists an extremely weak low-frequency vortex magnetic field around all biological systems. In trying to understand the energy fields which surround all living things we have come close to understanding the bio field phenomenon, the existence of which has been known of since time immemorial, with some of the evidence found in the Yajur - Veda and in Chinese medicine. The scientific discoveries underlying this method are simply a technological addition to the centuries old tradition of Oriental medicine based on the energy conceptions of acupuncture for regulating the body. If we turn to the Chinese meridian system we will learn of the mysteries of tsi flux which in energy terms is similar to that of the coherent photon

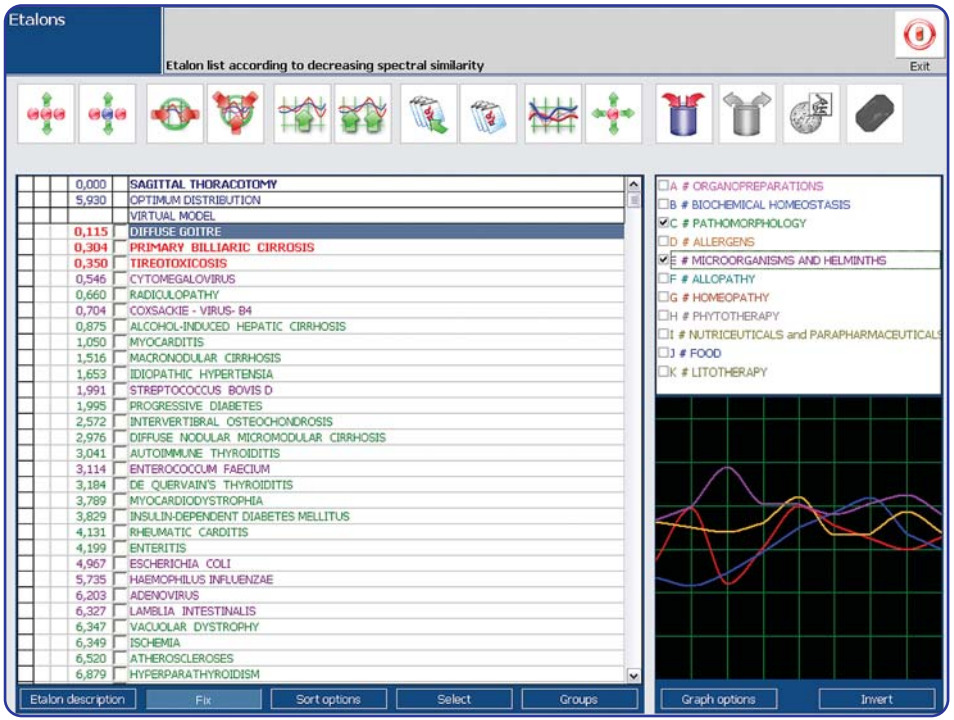
flux. Experiments on rabbits showed that animals, just like man, have a system of extremely fine tubular structures (about 0.5 to 1.5 microns in diameter). The American scientist B. Kim succeeded in making a discovery as to which of the terminal points in the acupuncture meridian were actually found to reach the cell nucleus. There are a great many means of influencing the meridian system for therapy purposes but their effects are not strong enough. According to the theory of quantum entropy logic the information exchange in any system occurs distantly and selectively due to the quanta of electromagnetic radiation, which has energy equivalent to the energy breaking down the bonds of the systems elementary structure. The principals of the theory of quantum entropy logic give rise to the assumption that biological systems with existing pathologies lead to unstable (meta-stable) states, which make the systems, break down far more probable. The Metatron which underlies the research system functions according to the principle of the amplification of the initiating signal with the disintegration of the meta-stable systems involved. In terms of physics the Metatron is a system of electronic oscillators resonating at the wavelength of electromagnetic radiation whose energy is equivalent to the energy breaking down the dominant bonds that maintain the structural organization of researched organism. The magnetic moments of the molecular currents, affected by external physical fields, lose their initial orientation, which causes misalignment of the spin structures of the delocalized electrons of the admixture centre of cortex neurons. This in turn gives rise to their unstable (meta-stable states) whose disintegration acts as an amplifier for the initiating signal. The hardware-soft-



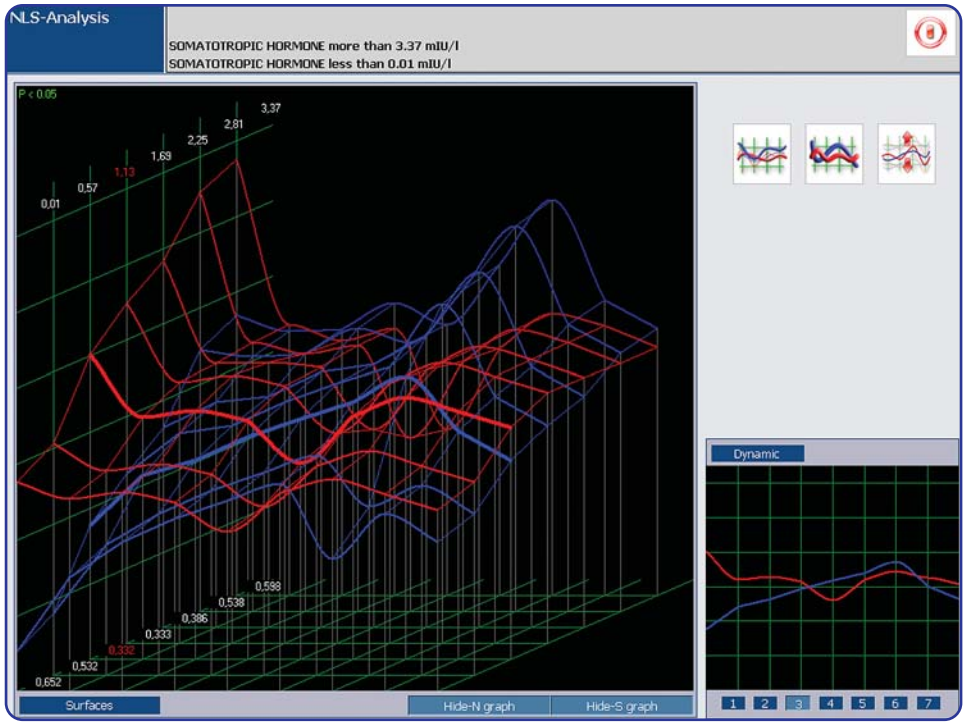


ware system developed at the Institute of Practical Psychophysics enables the production of a preset bioelectrical activity of brain neurons, with this activity as a background it becomes possible to selectively amplify signals hardly detectable against the statistical fluctuations, and then isolate and decode the information they contain. In a way the apparatus "Metatron" takes bearings of this radiation just where it originates in order to then decode and display it on the computer screen where a virtual model of the organ is produced in specific colors. Following the rules of quantum chromo kinetics, we represent entropy values of any system as spectrum colors, the tints will change from light yellow (minimum entropy values), through orange to red and purple, to nearly black (maximum entropy values).
More accurate theoretical calculations can be made by means of a computer that enables the singling out a number of stationary states corresponding to certain entropy potential which then selectively interact with the spectrum of electromagnetic radiation. Computer models also give physicians a three dimensional projection of the internal organs. Colored marks placed upon the picture make it easier for the doctor to determine the site of a pathological process. It is possible to judge the process of the disintegration of these biological structures, and to make a prognosis, by comparing the range of colors of the marks and their arrangement on the computer model of the organ, using the dynamics of their change over a period of time.
In order to define pathology in an area it is necessary to research deeper levels of the organ produced on the screen by the

computer until the pathology nidus is localized. It is the first time that advanced information technologies in the field of active homeostasis control are being introduced into the world market. The research workers at the Institute of Practical Psychophysics have made a breakthrough in the development of information preparations for the correction of the disturbed homeostasis balance within the body and the neutralization of environmental and infectious pathological agents. This is the most super active homeostasis control program in the world today.



The researchers at the Institute were the first to succeed in producing this most effective equipment that is capable of tuning to the frequency of the master pulses automatically without human intervention, as well as, detecting and correcting defects and pathologies in organs and body cells on its own. This is achieved through a combination of different specifically modulated magnetic oscillations recorded on a matrix. The fundamental concept in the development of this equipment was the hypothesis that the human body has an electromagnetic information framework that is able to respond to external radiation. The staff of the Institute of Practical Psychophysics managed to bring together different and separate trends of Valeology creating a quantum leap in working out a method of active homeostasis control. They then dealt with homeopathy and Chinese acupuncture with its further elaborations by Folle, Morell and Schimmel; the Indian Yaju-Veda and the charkas spin theory; phytotherapy and many other methods of healing.

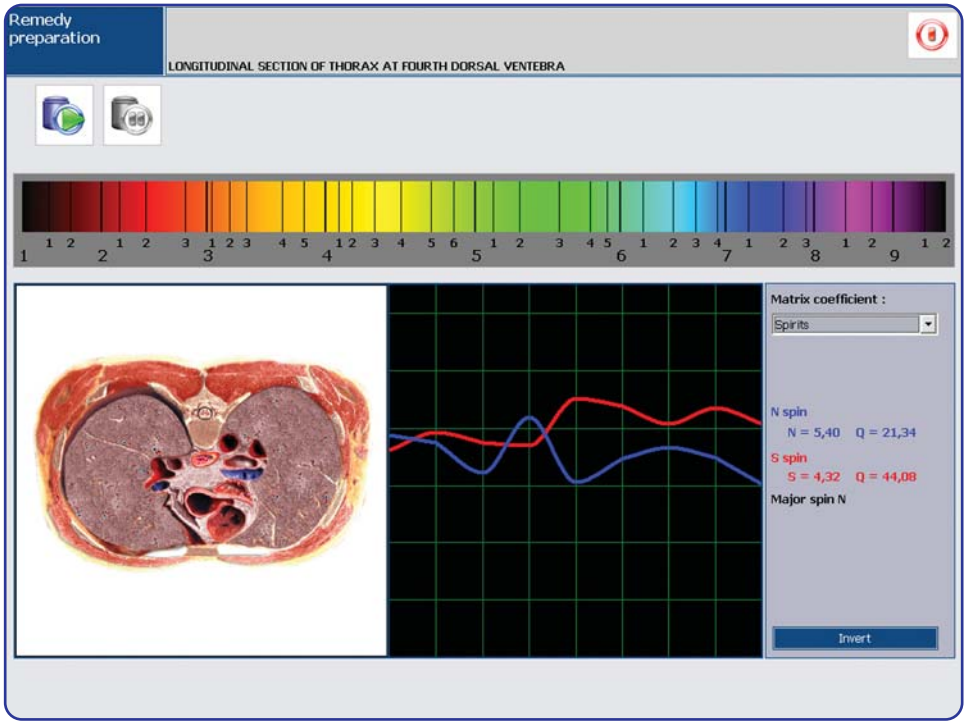


Theoretical and experimental work that has made it possible to produce the "Metatron" system - a nonlinear quantum generator - which was initiated by Nikola Tesla, a man of genius in electronics at the end of the nineteenth century. Other scientists who are worth mentioning later carried on this work. J. Lakhovsky, an outstanding French researcher, studied the effects of radio frequencies on animal health and plant conditions. The American scientist of genius R. Rife conducted research not only on the effects of radio frequencies but also on the effects of electrical frequencies on the human bio-field. In 1950 in Germany R. Folle discovered and worked out a system of electrically testing the acupuncture points of the human body.

Unlike Folle's electro-puncture diagnosis method, in which the energy potentials of organs and systems are measured through biologically active points (BAP), which describes the bodies condition indirectly and often with a considerable error, the NLS method of analysis developed at the Institute of Practical Psychophysics makes an evaluation of the organ's condition directly due to the resonance amplification of the radiation signal of the organ under investigation using a non-invasive trigger sensor. Every organ and every cell has its own distinctive oscillations which are stored in the computer memory and can be displayed on screen as a graph, which represents the conditions of the information exchange between the organ (tissue) and the environment. Every pathological process also has its own distinctive graph stored in the computer memory with all the progressive stages shown with age, sex and other variations taken into account. After reading the frequency characteristics of the

researched biological object, the system compares the degree of their spectral similarity with healthy, and pathologically affected tissue, or infection agents, to obtain the closest pathological process or tendency. In case of combined processes a virtual diagnostics mode can make a different diagnostics for each process.

Another wonderful opportunity offered by NLS-analysis is medicinal testing. The investigation system provides a unique opportunity of recording the frequency fluctuations of any preparation and adding them to the many thousands already held in the database. The system then searches for a remedy that has the closest spectral characteristic of the pathological process and selects the most efficient remedy.



In the light of what has just been said, any disease can be represented as a disturbance of the harmonic synchronization in any biological object. The disturbance may be brought about by different causes that in turn can be regarded as disharmonic electromagnetic oscillations causing blocks (noise), which interferes with the normal functioning of the body. It is now possible to eliminate these disharmonic oscillations by applying the laws of physics. In this case the simplest way would be to use electromagnetic oscillations with the opposite sign in order that the algebraic sum of the disharmonic and inverted electromagnetic oscillations would become equal to zero. Guided by these conclusions in the mid 70's, Dr. F. Morell together with another electronic engineer E. Rachet invented a method and a device called 'MoRa'. The method of information therapy (META-therapy) is a further advancement of the 'MoRa' method of solving the problem of

restoring the body's normal functioning in the cases of acute or chronic diseases. META-therapy is a means of influencing the body through a combination of differently modulated electromagnetic oscillations emitted from the "Metatron" system.
The scientists at the Institute then became interested in the experiments of Prof. S. Smith of Manchester University who had proved that water could 'remember' the coherent frequencies of the radiation it was exposed in a variable magnetic field, and retain in it's structure the information about those frequencies for a certain period of time. It means that an effective correction of the disturbed balance within the body can be mended by means of information recorded on a matrix. Information preparations (metazodes) are specific combinations of coherent frequencies chosen by the computer and are used to provide ready-made dosage forms with a direct effect. They are produced by means of the apparatus that transfers the frequency (spectral) information taken from the pathology nidus into a matrix (water, alcohol, or lactose). The metazodes have the effect of awakening of the body's own hidden reserves, which accounts for the wide area of influence of the preparations and the absence of harmful side effects when prescribed with conventional remedies.

V. I. Nesterov

Description and Field of Application

Telemetric nonlinear analysis data processing apparatus "Metatron" (hereinafter "apparatus") can be used for non-linear analysis of biological structures and testing of biologically active supplements. The apparatus can also be used in research centers and scientific research facilities.

Purpose

The Metapathia-GR Hunter software can operate only with the telemetric nonlinear analysis data processing apparatus "Metatron" and its subsequent modifications. The telemetric nonlinear analysis data processing device is compatible with the IBM-type PCs and intended for studying reaction of a biological object to different types of the informational impact. "Metatron" allows correlating the measurement process with the process affecting it and performs the following operations:

1) It measures J (0) which mirrors the change of the describing parameter, and the entropic potential relative to its initial value;
2) It transforms continuous signal J (0) with the preset intervals of frequencies into a histogram (a row of numerical values of scanned frequencies with serial numbers from 1.8 to 8.2 Hz.);
3) It sends the current W values to PC and displays the graph on the monitor simultaneously with its impact on the examinee.
4) It accumulates the W value in its memory unit, if observing the histogram is more convenient upon completion of the measurements;
5) It issues the scale-correlated commands required for regulating the effect on the examinee at testing;
6) It transmits the W values from the unit into PC memory upon completion of the measurements and saves them in unit memory of prior to the beginning of recording data of the next measurements.

Using of the "Metatron" system

The apparatus is intended to register psychophysics changes in system and allows to:

- Get qualitative estimation of functional condition in a form of topical analysis.
- Control effectiveness and results of different ways of treatment.
- Analyze dynamics of functional condition changes over period of time.
- Determine initial nidus of functional breach.
- Estimate character of changes using expert systems.
- Estimate basic characteristics of bio-system homeostasis.

The information on a particular temporary condition of a biological object is read contactlessly with the help of a digital trigger sensor, which was developed using modern information technologies and micro circuitry catching tiny fluctuations of the signals, evolved out of average statistical noise characteristics of the fields, and converted into a digital sequence, processed with the help of a microprocessor for transmitting it via interface cable to the computer.

The minimum requirements that a compatible computer must have are:
Operating system: Windows 2000/XP;
Processor: at least 1 GHz Pentium III
Random access memory: 512 Mb;
Video card: SVGA High Color 1024x768 at least 8 Mb;
Printer (color);
At least 1 GB of free space on the hard drive;
Two USB ports;
CD - ROM;
Uninterruptible power supply

Origins

The Oberon system came into being, as the result of many years of medical, biological, physical and technological research carried out by the authors and developers:
V. I. Nesterov, A. E. Akimov, Y.V. Nosov and D. V. Koshelenko
RF Patent No200161075 of 16022001 dated 16.02.2001
USA patent USA US N 6.549.805. B1 dated 15.04.2003.

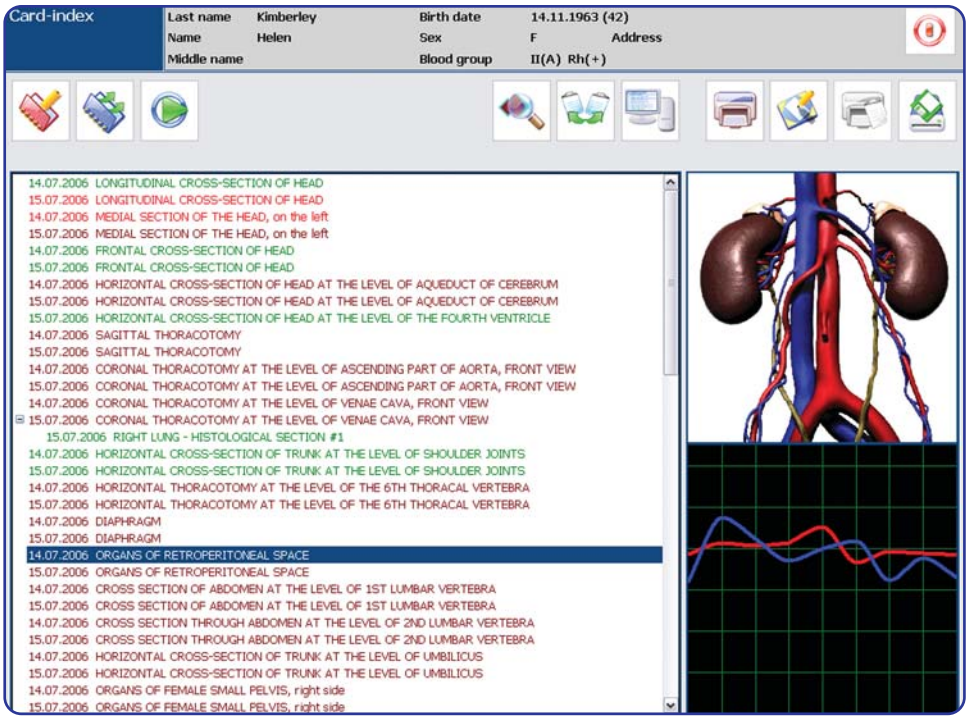
Special requirements

Requirements to carry out functional objectives in research mode. The diagnosis program uses the algorithms introduced into the program to carry out the diagnostic analysis. During the diagnosis session information exchange takes place by means of the following apparatus placed on the patient's body. Operational life is not less than 5 years. Apparatus design provides safety of a patient and personnel. Emergency stop of the apparatus will not cause any harmful side effects.

Operating principle and operational procedures

The system operates according to the principle of the amplification of the initiating signal of disintegrating meta-stable structures. Affected by the external electromagnetic field, magnetic moments of molecular currents in the admixture centers of the cortex nerve cells, causes them to loose their original orientation. This result in misalignment of the spin structures of these delocalized electrons gives rise to unstable or meta-stable states within them. These disintegrating conditions then act as the initiating signal.
In terms of physics the apparatus is a system of electronic oscillations, which resonate at the wavelengths of electromagnetic radiation. With their energy being equal to the energy required to break down the dominant bands that maintain the structural organization of the biological object. The system enables the production of a preset bioelectrical activity of the brain neurons, and with this background activity, it becomes possible to selectively amplify signals, which before were hardly detectable against the static fluctuations. The information about the specific temporary conditions of organs and tissues are then gathered on a non-contact basis by means of a "trigger-sensor", developed with the aid of modern information technology and micro-circuitry. The sensor detects faint signal fluctuations and selects them from the average statistical noise characteristics of the field and converts them to a digital sequence that is processed by a microprocessor, which is then transmitted to the computer through the interface cable.

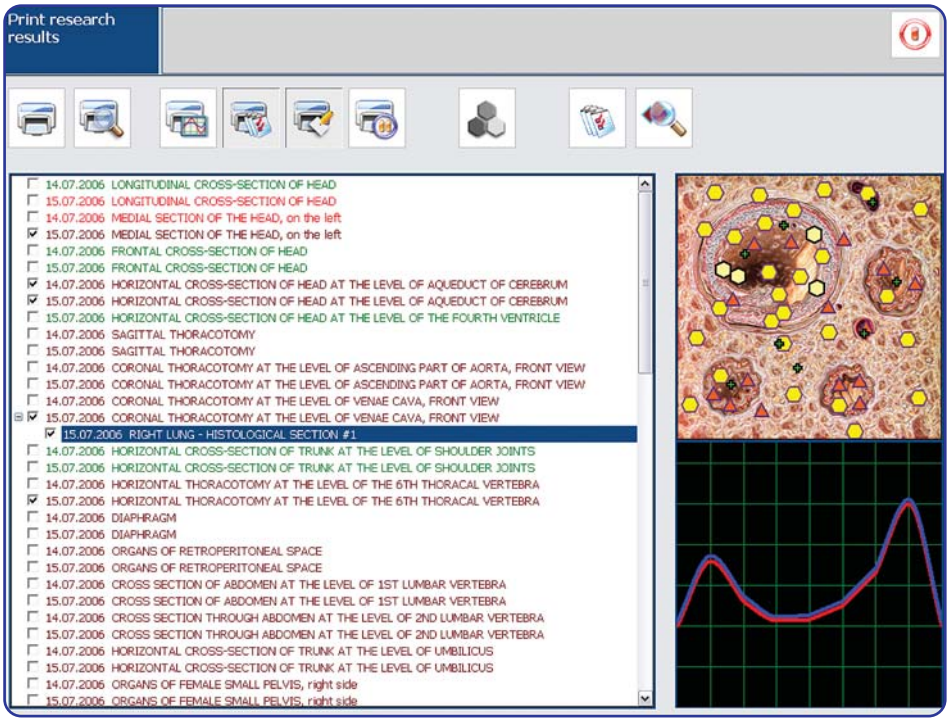
Capacity and productivity



The system is designed to diagnose one patient at a time. The operating cycle takes from 3 minutes to 1 hour. The system can run non-stop for 24 hours.

The computer, according to the established program operates automatically in adjusting and controlling all information. The results of the patient's diagnosis are displayed on the monitor screen and kept on a separate file on the hard disk. The information can then be transferred to an individual diskette for future use. The current information is displayed on the screen as required.

The results of the investigation can be printed out on a color printer with one to four pictures on an A4 sheet in the order selected by the doctor. While the test information and prescriptions can be printed separately.



Technical requirements

System design, major components:
an electronic unit with external power supply unit;
software on CD-ROM.

Removable components:
GR unit - universal scanning unit (uniting magneto-inductor and trigger sensor)
a resonance chamber;
an interface cable.

Method of packaging:
The apparatus, its removable parts and a set of Operational Documentation are wrapped in polythene and packed in a small suitcase.
The apparatus comes together with Operational Instructions in accordance with GOST 2.601-95 including:
Operating manual,
User's guide on CD-ROM.

Apparatus dimensions: mm width - 240; length - 180; depth - 40.
Weight of assembled apparatus is not more than 1.2 kg.
Magnetic intensify on the surface of the GR unit - 21±0.5 mTl.
Type of modulation in the magneto inductors' circuit - pulse duration modulation (PDM) Frequency range of interruption in magneto-inductor's circuit is from 1.8 to 8.2 Hz.
Interruption rate control pitch - 0.02 Hz.
Pulse ration from 0.1 to 99% with a 1% pitch.

Modulation frequency: Low-frequency modulation - 240Hz. High-frequency modulation - 4.9 GHz.
The sensitive element is a noise-voltage generator (with constructively revised 2Г401В diode used as a noise source). The element is energized by constant direct current with a value of several microamperes. The current value is selected at the bench in the course of adjustment. The information signal is picked up off the sensitive element and is passed along an amplification path.

The gain factor of the different amplifier is not less than 85dB.
The frequency band for processing information spikes in the noise is in the range of 4 - 1800 kHz.
The toggle frequency of the shift register is 0.8±0.01 MHz.

Power supply characteristics:
The apparatus operates from AC mains with a frequency of 50+/- 1 Hz and a rated voltage of 110-220 V, the supply voltage can fluctuate +/- 10% from the rated value. The power consumed by the system is under 40W.

Time characteristics:
Time for setting the operating duty after the system has been switched on does not exceed 3 seconds.
Time for switching off the apparatus is about 1 second.
The apparatus provides recurrent short-time duty with cyclic recurrence - 60 min in operation followed by a 5 - minute break for 24 hours with a subsequent 30 - minute interval.

Control unit characteristics:
The control unit consists of a microprocessor unit and a pulse duration modulation circuit.
The interaction of the computer, system and peripherals is determined by a program incorporated in the microprocessor.
The diagnosis procedure is controlled from a keyboard and by means of a mouse.

Software's Requirements:
The program receives control information from the head program from IBM PC via USB standard interface and converts it into control signals. The program also receives information from the peripherals and transmits it to the head program in IBM PC through the standard interface. The program is materialized and stored in the internal flash memory of the microprocessor (single-chip microcomputer) and comprises:
the program's main body;
a program that receives control information;
a program that analyses control information;
a subprogram that issues control impulses;
a subprogram that reloads the real-time timer;

a subprogram that receives information from the noise sequence;
an information output to the head program;

The head program was developed using Borland Delphi-7, realized and recorded on IBM PC hard disk and can operate under the operational systems Windows 2000/XP. The information used by the program during the operation is stored in InterBase tables and binary files. The program is protected from unauthorized copying. The program can be installed and started only when the apparatus "Metatron" is switched on.

Maintenance conditions:
-The apparatus is resistant to changing weather conditions during operation or storage with GOST P 50444 standard for UHL class 4.2.
-In terms of mechanical influence the apparatus corresponds to GOST P 50444 standard, group 2. The external surfaces of the system are disinfectant resistant according to GOST 42-21-2-85 standard.
The apparatus can be transported by any sheltered means of transport, excluding non-heated plane compartments.
The apparatus is resistant to:
-Mechanical influence according to GOST P 50444 standard for goods of 2nd group;
-Weather conditions according to GOST P 50444 standard for type 5 storage conditions.

Service personnel requirements:
Service must be done by personnel with medical higher education and special trainings.

Technical personnel requirements.
All preventive maintenance and repairs must be done by engineers-experts in electronics.

Safety Requirements:
The system is safe for both patient and operating staff that is permitted to use it as stated, both in terms of the trouble free operation and in the case of system failure. In terms of electrical safety the apparatus corresponds to the requirements of GOST 50267.0-92 standard (for class 1, type B goods) and GOST P MEK 601-1-1-96 standard.
The design of the system ensures safety even when the power supply is interrupted and then resumes unless the interruption is made on purpose, according to GOST P MEK 601-1-1 standard.

Electromagnetic compatibility requirements:
The level of radio frequency emission produced by the system with the GR unit switched on meets the requirements of GOST P 50267.0.2, paragraph 36201 and does not exceed the values specified in the following standards:
GOST P 23450 and Norms 5 B-80 for high-frequency equipment;
GOST 29216 for informational technology equipment.
The system meets the requirements for noise immunity in accordance with GOST P50267.0.2, paragraph 36.202.
The system and its components can reach extreme temperatures according to the requirements of GOST P 50267.0 paragraph 42.
The corrected sound power level produced by the system at a distance of 1 m does not exceed 20 dB.
The materials and coating used for the apparatus do not give off harmful substances and are permitted for everyday use.

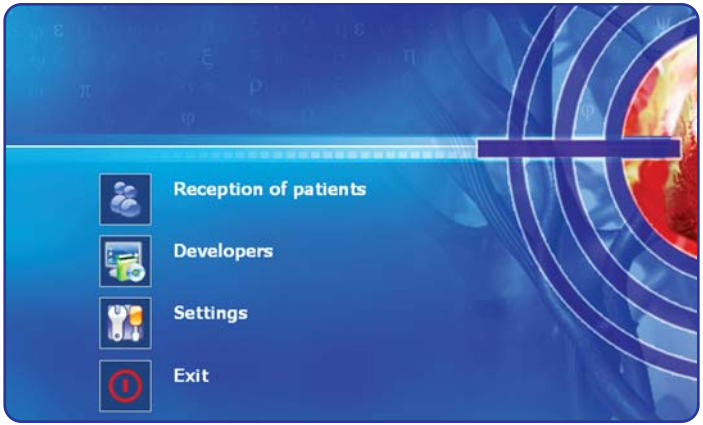
Reliability requirements:
According to the effect of possible failure the apparatus should be referred to Class B in compliance with P 50-707-91.
The average failure - free service time is not less than 5,000 hours.
The average lifetime till the system becomes unfit for use is not less than 7 years.
Uninterruptedly working apparatus has computational probability of faultiness according to R(T) = 0.85 at T = 600 hours.Design requirements
Protective and decorative coating of the system ensures corrosion resistance of all parts for UHL 4.2 operating conditions according to GOST 15150 and is applied in compliance with the requirements:
- metal and non- metal covering according to GOST 9.301;

- varnish and paint coating according to GOST 9.032, IV or over.
Electronic unit dimensions - not more than 255 x 180 x 65 mm.
Weight of the system complete with peripherals - about 1.3 kg.
The system has to be connected to PC by means of a standard USB cable.
Patent cleanliness has been ensured in the RF, USA, Czech Republic, Germany, Bulgaria, Japan, Korea, Netherlands, Belgium, Poland, Italy, UK and China.

Technical Documentation requirements.
The technical documentation for the apparatus includes: Project TU according to GOST 2.114-95; Operations manual according to GOST 2.601-68.

Metapathia©-GR *HUNTER*

Metapathia - GR Hunter program is intended for computer nonlinear analysis and local chromosome aberrations estimation.



Launching program displays a group of buttons named as **"Main menu"**. You can start working with the program by clicking the button **"Reception of patients"**.

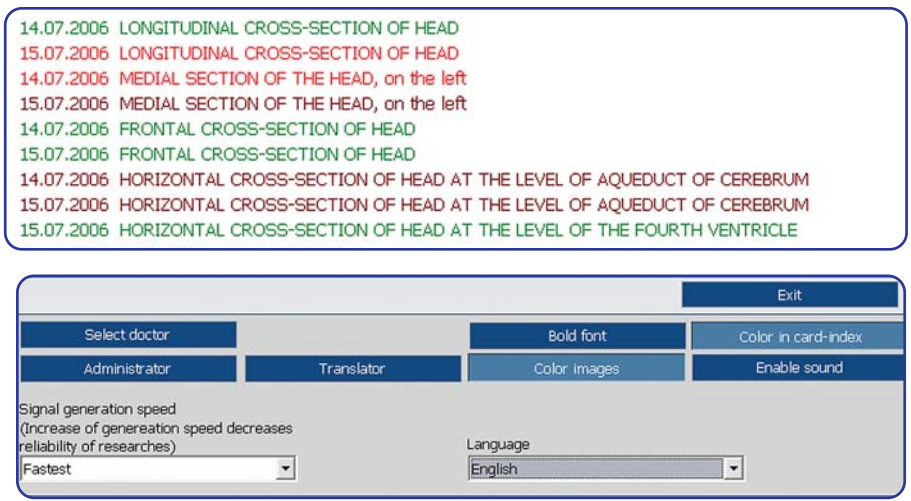
By clicking the key **"Developers"** you can acquire information on the program developers.

Clicking the key **"Settings"** displays the setup form where you can select the language among Russian, English, etc., turn on and off sound, change font size.

The button **"Select doctor"** allows selecting from the list the doctor, who will carry out the researches.

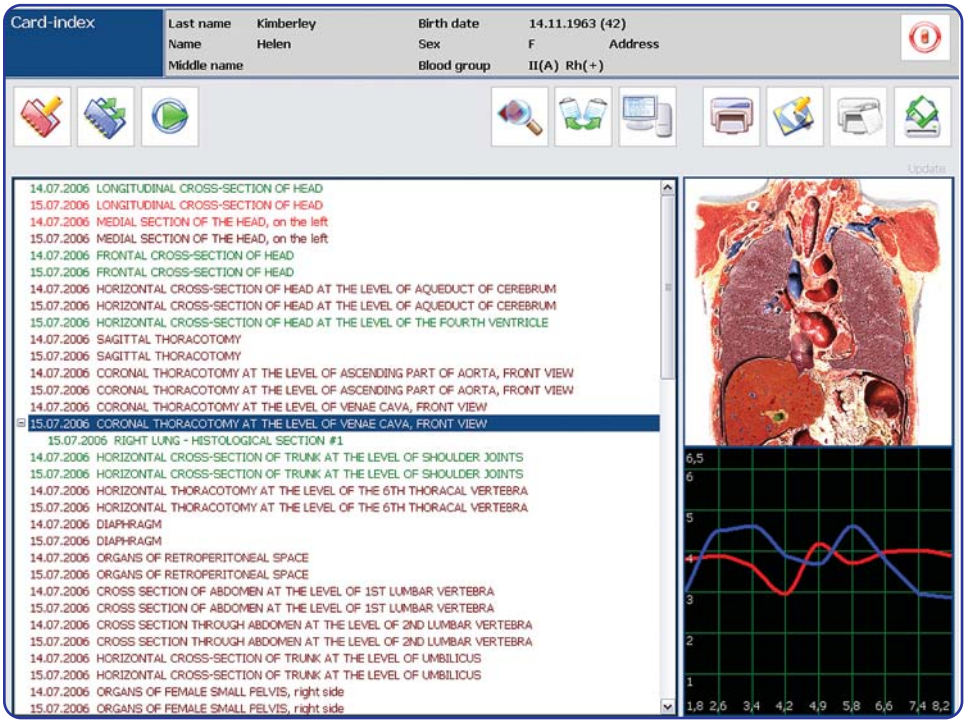
Also you can:
Turn all pictures in color by pressing **"Color"** button. Repeated pressing turns pictures to black and white color scheme.

Button **"Color in Database"** allows you to highlight organs with different functional stages from already made researches:
-Green line shows there is no pronounced functional change in evidence.
-Red line shows minor functional changes.
-Brown line shows pronounced functional and/or organic changes.



Press '**Exit**' to exit the program.

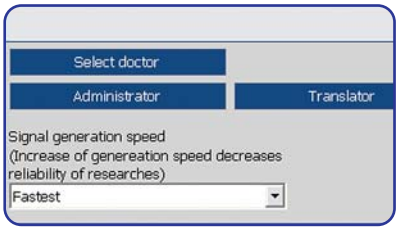
Before research, make sure that patient is sitting before the apparatus and GR unit, consisting of magneto-inductor and trigger sensor, is on patient's head.

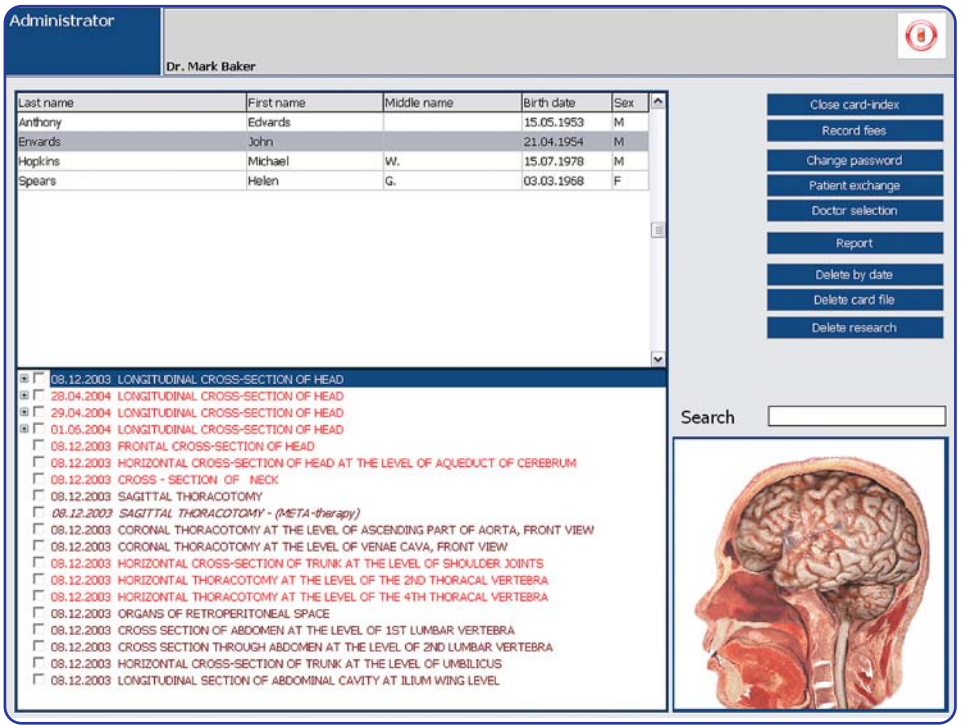


Metapatia GR Hunter software has a common form construction system. In the upper line there is supplemental information; to the left from the line - name of the form, to the right - **"Exit"** button.

Control buttons are shown as pictograms, by pointing on them you can read a description of them.

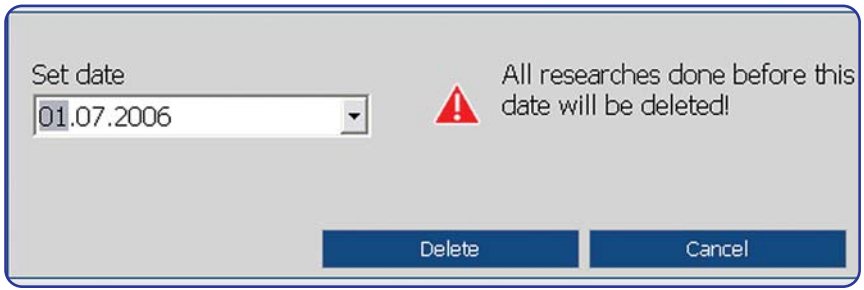
"Administrator" button allows the owner of the equipment exclusive to:
- open or close the card file of patients to other users by pressing **"Close card file"** button;
- to turn on or off the Record Fees mode that charges every patient for the completed investigation by pressing **"Record Fees"** button.
- access the administration mode by pressing **"Change password"** button;



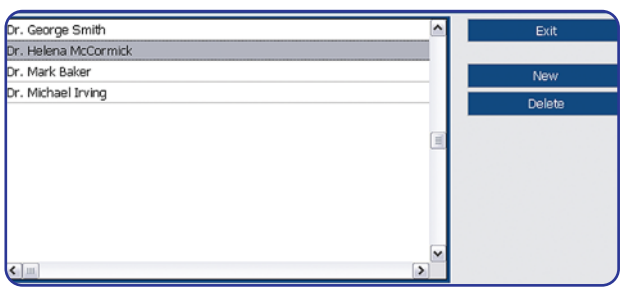


"Delete card file" button in right column removes the card of the selected patient;
"Delete research" button deletes an individual research.

Press the **"Delete by date"** button to remove data on all patients before the selected date.
In **"Delete by date"** window you can specify a date; all researches dated earlier that date will be removed.

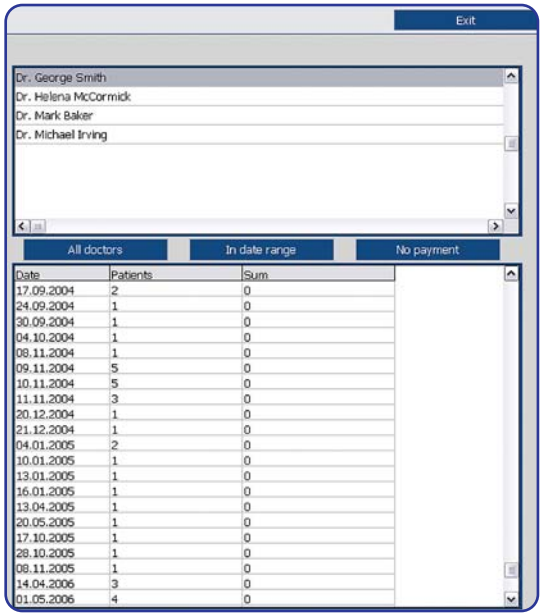


Press **"Doctor Selection"** button to obtain a list of all the doctors using the system.
Selecting a doctor by name will then display his or her patients.
Press **"New"** button to add new doctors-users of the system. Also you can remove users by pressing **"Delete"** button, which deletes all patient's records for that particular doctor.
Patients can be transferred to another doctor using the same system by pressing **"Patient exchange"** button.

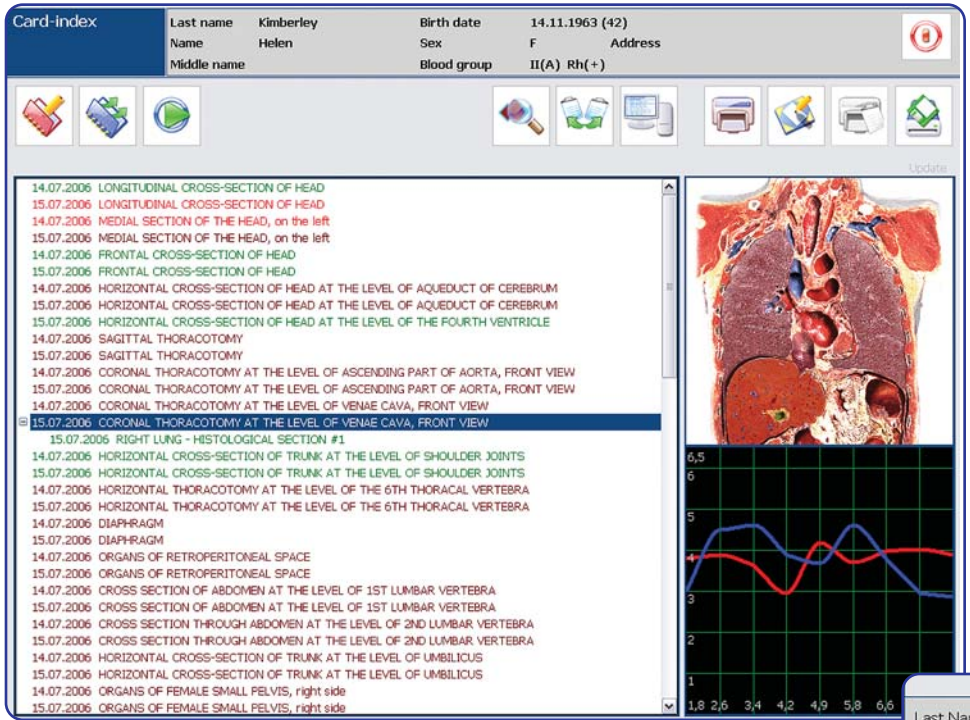


"REPORT" button shows a statistic analysis of the investigation time, the number of patients seen and the number of investigation sessions made by each doctor or all doctors in the practice. It is also possible to make a financial evaluation of the work carried out in a practice or scientific department.

The line **"Search"** allows to quickly find a patient's card by the first letters of his/her surname.



Patient's card



The button **"Reception of patients"** displays the **"Patient's card"** containing his/her personal data, such as: surname, name, patronymic, age, sex, blood group, address, phone number.

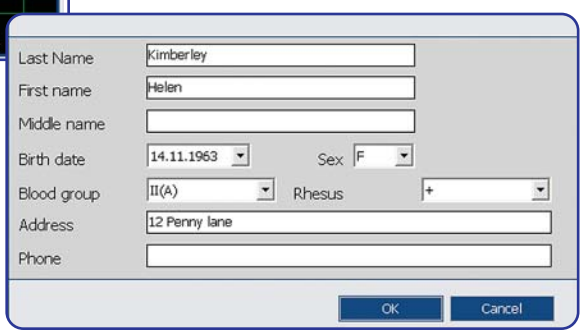
The list of researches takes the most of the form.

Picture of an organ and resonance frequency graph are shown to the right.

Clicking the key **"New patient"** displays a new form which has to be filled in as required. You have to indicate surname *, a name *, a patronymic, date of birth *, the address, phone, sex *, blood group *, rhesus - factor* (sex, blood group and Rh factor I selected by choosing from the drop list).

* asterisks denote the fields that must be filled.

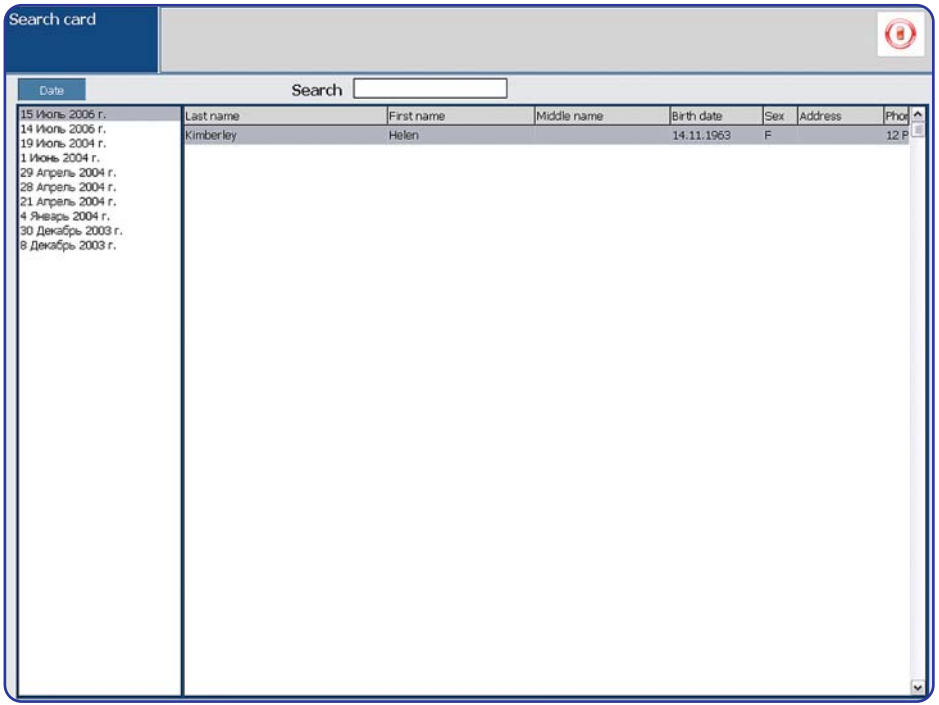
After clicking **"OK"** the program switches to the researches mode.



Press **"Choose patient"** button and **"Search for patient's card"** window will appear. Here you can find all data about every patient seen by the doctor, namely surname, name, patronymic, age, sex, address and phone number. Mind that this form can be closed by the administrator.

Also you can search for a patient if you enter patient's surname in **"Quick search"** line (sometimes it is enough entering few first letters of the patient's surname).

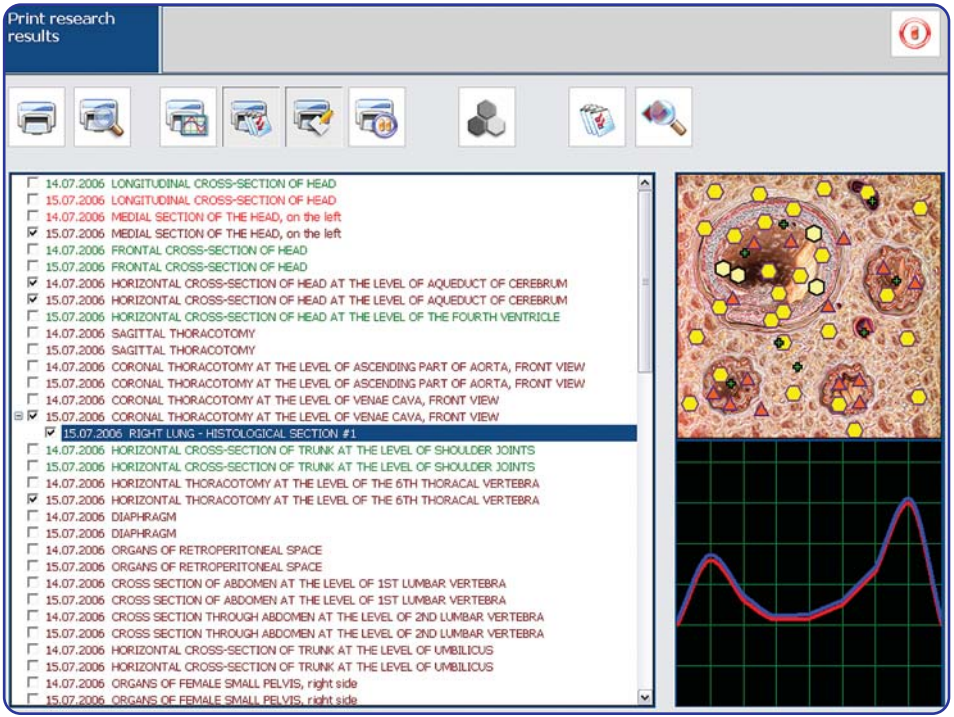
If **"Date"** button is pressed, you can see dates of researches to the left from patients list. Choosing one of the dates you can see names of patients that were researched in that day.



The button **"Research"** allows to begin a new examination, continue the researches performed in the course of the day or to begin a control study.

The button **"Statistical research"** allows to carry out comparison of the condition of a particular organ (by paired comparison) at once in several patients randomly selected from the card file, which may be necessary for conceptualization about specifics of lesion of the organs at particular diseases

The button **"Drawing conclusion"** opens a window in which the physician can write the conclusion about patient's health. The conclusion can be printed out by clicking **"Print conclusion"** button.



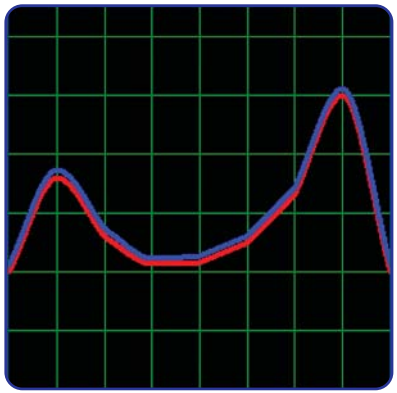
By clicking the **"Print researches"** button we switch to the mode of preparing the researches for printing.
The program allows printing out up to 4 pictures sized 100x100 mm on one A4 sheet.
Besides it there is a possibility to look through earlier made **"Epicrisis"**, opening for analysis and for printing (buttons **"Epicrisis"** and **"Print epicrisis"**) the reference processes with graphs taken from the examined patient (at spectral difference factor (D) less than 0.425)

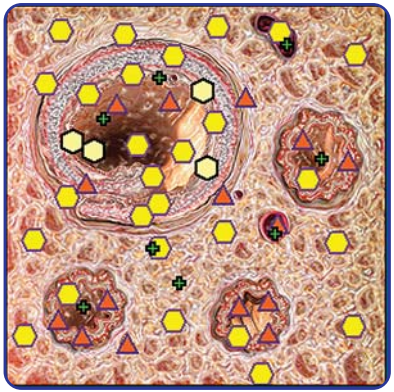
The program allows to print out the most effective bioactive supplements picked up by the expert based on the results of the current analysis or to adjust the previously picked up drugs by exiting the form of preparation for printing to the analysis mode (**"Analysis"** key).

The key **"Print notes"** allows to print out additional recommendations and notes concerning the patient, drawn by physician.

The key **"Pause between pages"** allows to temporary interrupt printing to have the possibility to printout the results on both sides of a sheet.

The key **"Color"** allows making pictures colored or black-and-white, if switched off.
The key **"Printing"** - starts printing out.

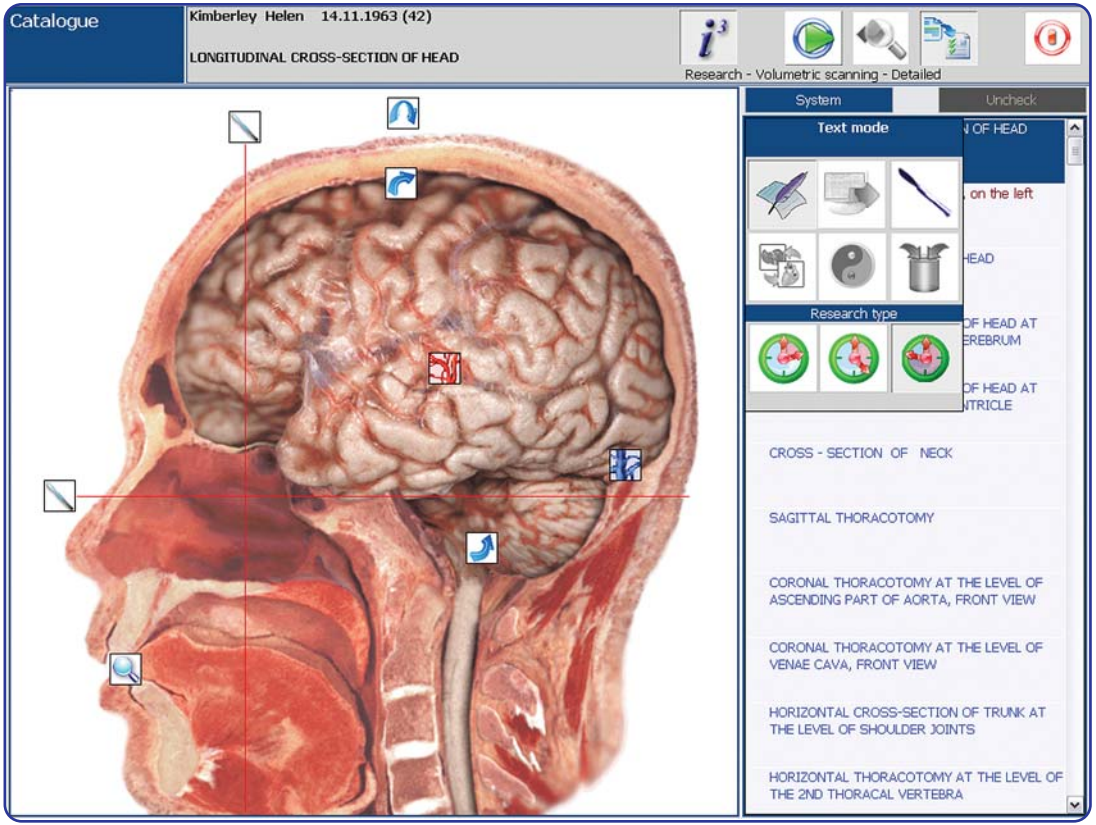




"Current analysis" is the analysis of the results taken during the course of the investigation, with possible additional investigations of the patient being made with or without their being connected to the system (press button **"View the results"**).

"Comparative analysis" is a comparative analysis of the results of several investigations with the patient under dynamic observation.

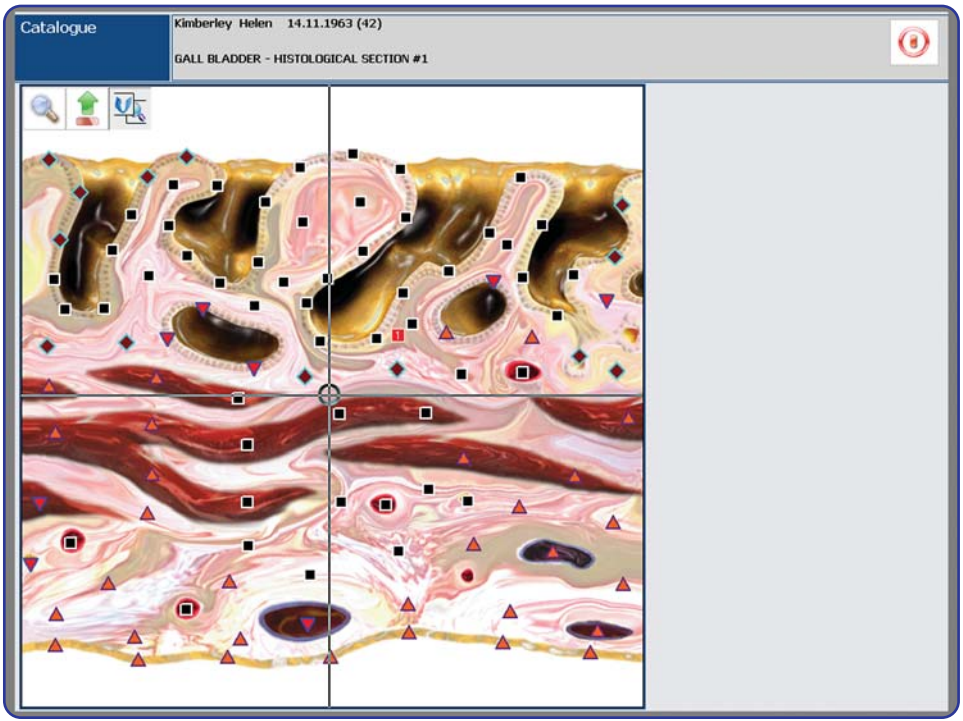
"Write to disk" - allows writing on a diskette data on researches of the selected patient with the possibility of its further copying into the program.



The form **"Researches"** allows to carry out computer nonlinear analysis in the mode of a programmed and (or) individual selection of the organs intended for researches.

The main feature of "Metapatia-GR Hunter" software is **"3D scan"** function, which allows automatically localize the nidus where tumor and hereditary diseases appeared, find out the reason of appearance on genome level, passing one by one histological, cytological preparations, chromosomes and going deeper to the level of DNA molecule parts.

You can turn on this mode by pressing **"3D scan"** button.



If this button is not pressed, researches will be carried out in normal mode, without localizing of nidus where pathology appeared.

During the research the most grave changes in tissues shown on macrocuts are revealed, then search and research of histological cuts of these tissues in areas of the most significant pathological changes are carried out. Then, after histological cut research, the search for the most significantly changed cells is carried out, which examined to reveal changes in cell structures. After that, the algorithm of the search goes to the level of chromosomes, to estimate the changes in single chromosomes, then it goes deeper to the level of DNA molecule research.

During the research in "3D scan" mode the estimation of topological picture and metastasis is carried out. Additional researches fulfilled to search metastases into other organs. The research is done in automatic mode; user can observe it and stop at any moment.

The button is multi-purpose for starting of the research, estimation of micro- and additionally placed points, nidus estimation and making of preparation. The name of the button is changed according to fulfilled function.

The button **"Analysis"** allows carrying out a routine analysis based on the results of the researches.

The button **"Ectomy"** allows to preclude an attempt to examine patient's resected organs.

The switch-button **"Programmed/individual choice"**; when it is pressed allows an automatic selection of a profound detailed researches of anatomical, histological and cytological structures depending upon the presence of frank changes in complete anatomical sections of the body; when the button is not pressed the physician can solely select for researches the organs belonging to one of the anatomical systems, by putting or removing tags on the organ's picture, in the right part of the screen on the split bar with right mouse button.

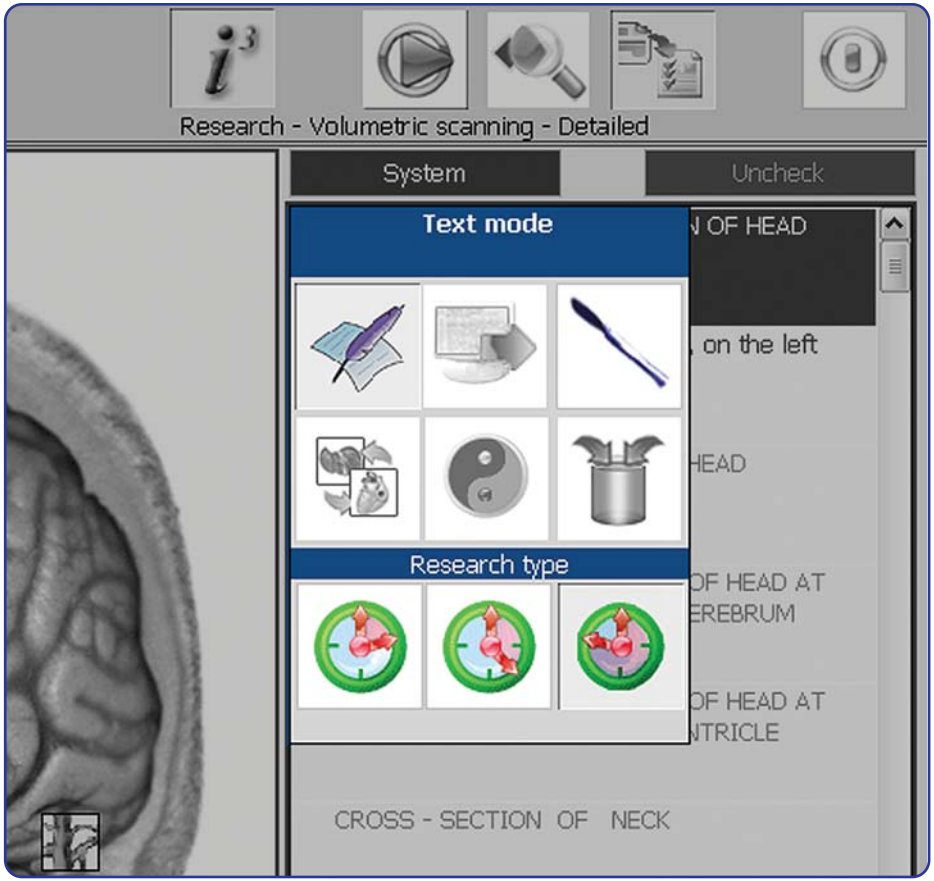
The button **"Make preparation"** - the preparation is made automatically for pictures, in which the nidi were evaluated. After clicking this button the operator should select the organs subject to preparation making and press the button **"Start preparation making"**.

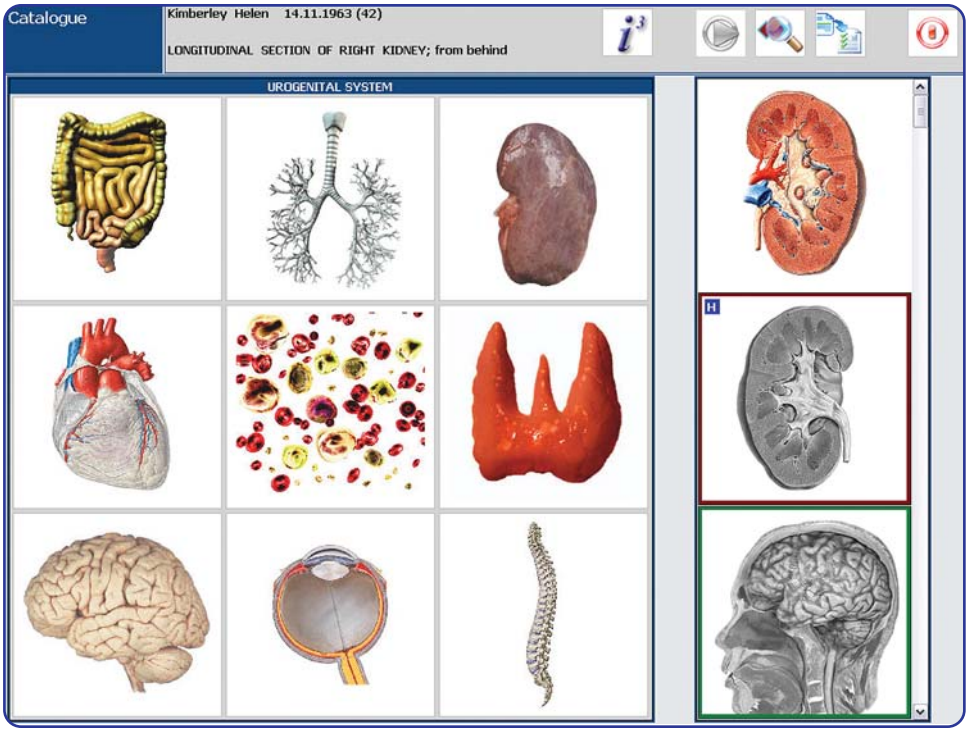
In organs catalogue there are two modes of representation:
-graphical - organs shown as pictures;
-textual - shown names of organs.

You can switch modes by pressing **"Textual mode"** button. In textual mode **"Sort"** and **"Cancel/Restore chosen"** buttons are available. **"Sort"** button allows change modes of organs list sorting.
There are four modes:
-According to systems. Organs sorted according to systems: main catalogue, digestive system, respiratory system, urogenital system, cardiovascular system, blood and lymph, endocrine system, nervous system, sensors and musculoskeletal system.
-In alphabetical order.
-According to isolines. Positions of isolines are compared. Organs with higher positioned S-graph shown in the beginning of the list.

-According to points. In the beginning of the line shown organs with more pronounced changes in estimation points.

"Options" button shows additional buttons panel.





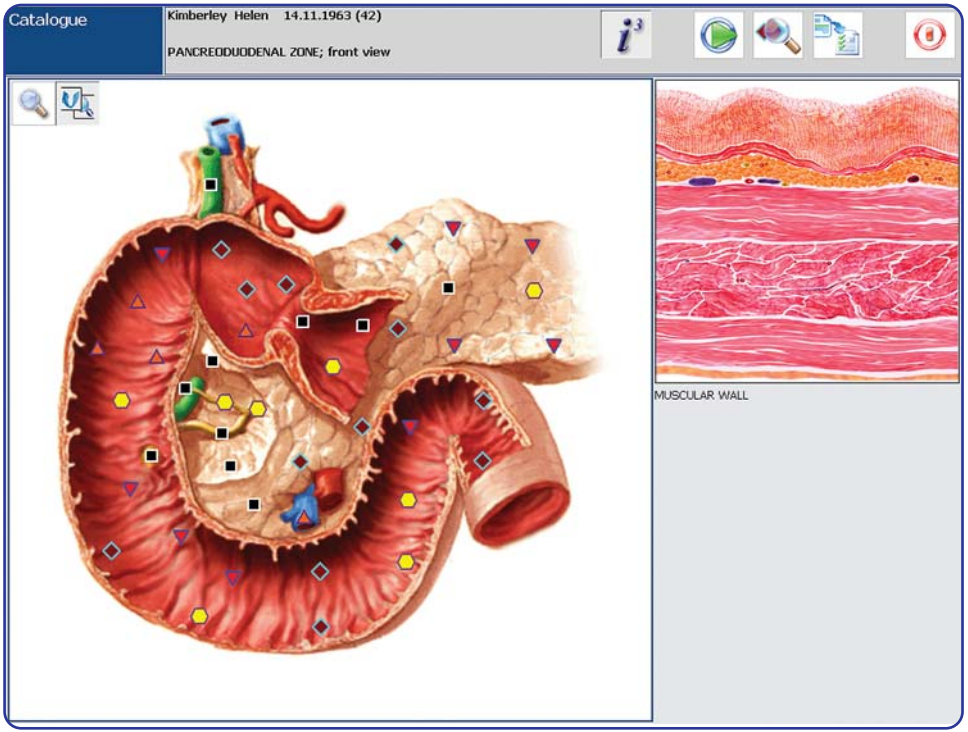
Clicking the button **"Select system"** displays 9 buttons with images of the organs typical for respective anatomical systems. After selecting a particular system, only organs of this system become accessible on the extended view pane, and the upper line will contain its name. To return to the basic catalogue organs the operator has to repeatedly press the button corresponding to the selected system.

"Acupuncture" - switch-button allows entering the bioactive points research mode. The extended view pane now contains accessible images of organs (hands, feet, auricle, iris) intended for evaluation of the acupuncture points.

The additional projection/ultra-structure switch-button allows engaging the modes **"Additional projection/ultra-structure"**. In **"Additional projection"** mode the organ's image contains icons with which help you can quickly switch between organs. Pointing the cursor at the icon to the right of the control buttons displays the organ's image and name. Clicking the icon unfolds this organ.

To return to the initial organ press the button located in the upper left corner of the image.

In the Ultra-structure mode histological, cytological and molecular researches are carried out. Moving the cursor over organ's projection, you select the structure of your interest, which image and name appear on the right, and the cursor becomes a cross-hair. Clicking the left mouse button starts researches of a respective structure at the preset point. After the researches are completed an icon emerges on the organ's image, which can be unfolded by clicking it with the left mouse button. On one and the same organ you can make several researches of ultra-structures with different localizations, gradually passing from microscopic sections to cytological preparation and molecular structures.

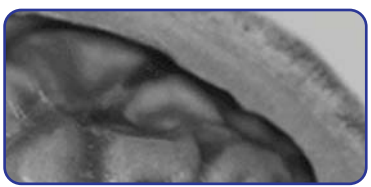


Types of researches:

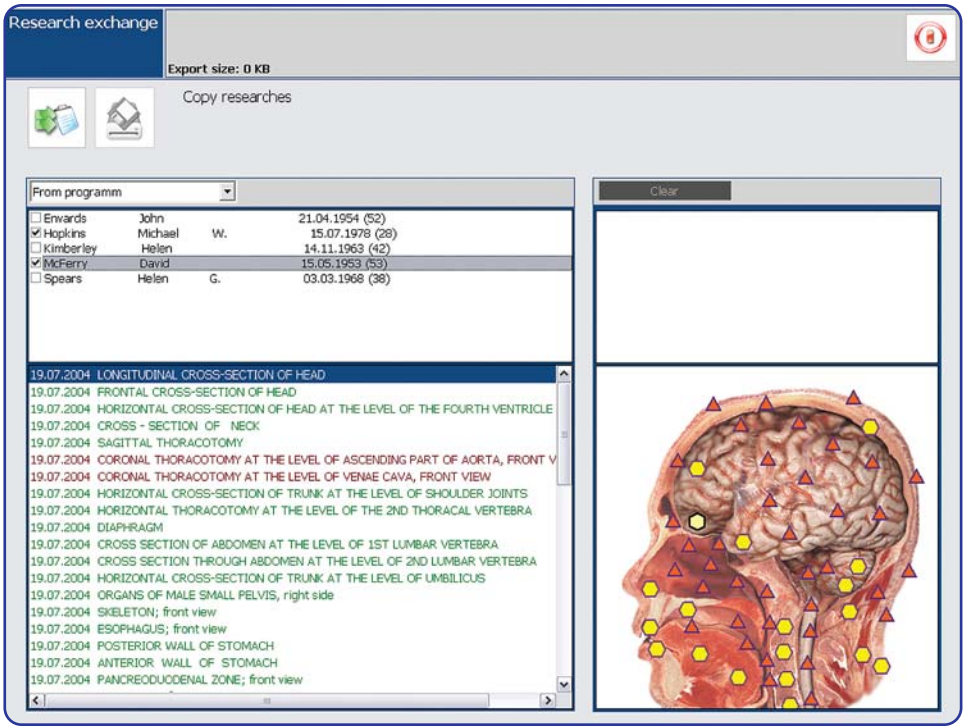
Express - enables investigations to be carried out on the full topographic sections without details.

Standard - enables the study of individual histological or genetic structures to be carried out, provided they show pathological changes.

Detail -enables an evaluation to be made of the structure of all body tissues on histological, cytological or genetic levels, which may be important to high quality scientific research.



Copy research



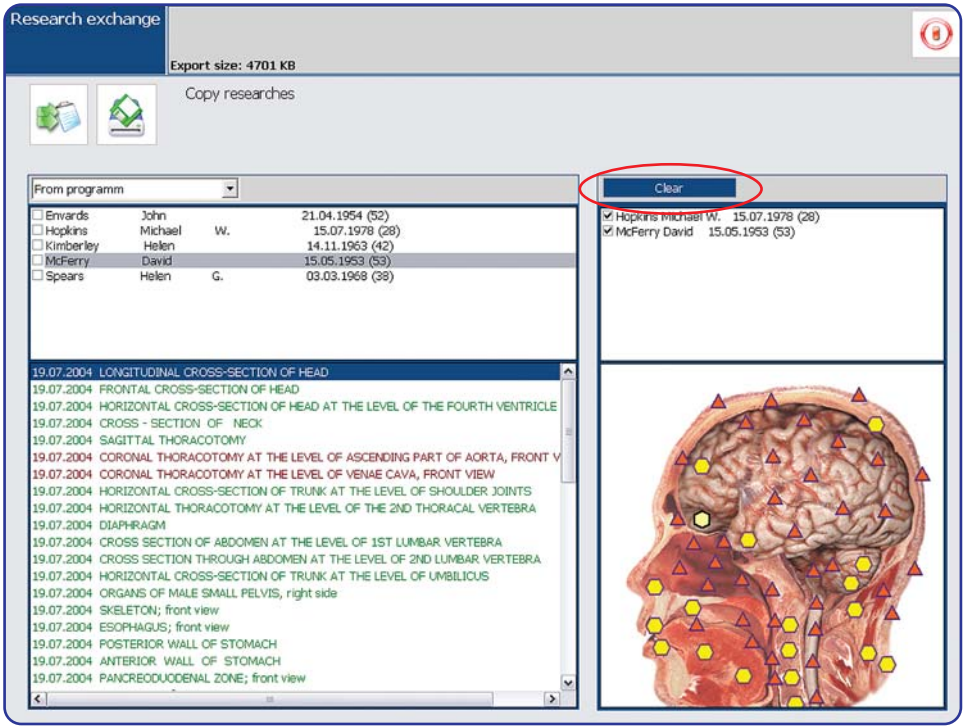
When **"Copy to disc"** button is pressed, a form in "Patient's card" window appears. Here you can copy patient's research data to a disc and from a disk to existing patient's catalogue.

First of all choose direction of copying from drop list: **"From program"** or **"Into program"**.

To copy patients mark the surnames and press **"Copy"** button, when copying is finished list of patients ready to be copied appears in the right part.

When the list is completed press the button **"Copy to disk"** choosing a place to where you will copy in the dialogue window.

The **"Clear"** key clears the list of persons and researches prepared for copying (without erasing them from the disc).



The button **"To program"** copies the researches data from a diskette to the existing catalogue of patients on the computer. When this mode selected, data source (diskette, disk) must be chosen. After clicking the **"Copy"** key the contents of the diskette will be moved to the program.

Determination of system's resonance modulation rate

The Pulse Ratio measured signal scale shown in percentage terms.

The Graph of the distribution of the amplitude of the measured signal is measured in the standard frequencies of 1.8 - 8.2 Hz.

Relative scale of the decibel noise level in the system.

A representative scale of the effective signal/noise ratio.

A representation of Fleindler's logarithmic polychrome scale.

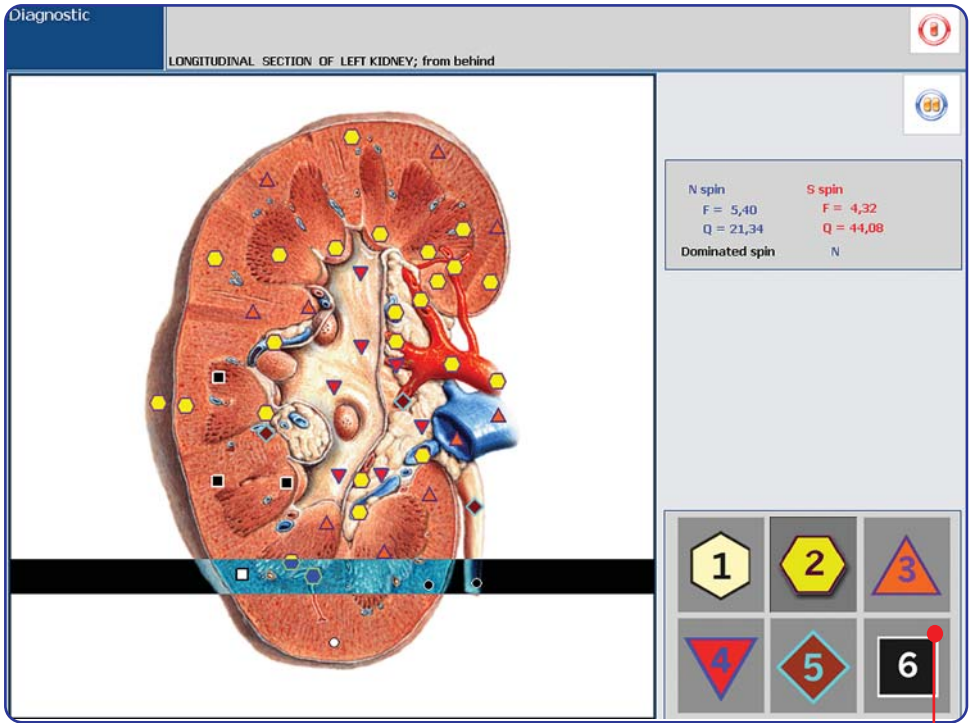
Picture of the organ.

The button **"Stop/Resume"** interrupts the research. When pressed the button changes to **'Resume'** and when released the research will continue automatically.

In **"Determination of system's resonance modulation rate"** mode you can estimate spectral characteristics of fracture nidus. All main buttons are the same as in the form of determination of system's resonance modulation rate.

In the **"Researches"** mode you measure the frankness of the destructive process at reference points standardly placed on the picture, the results being evaluated on six-point polychrome Fleinder's scale which buttons are located in the lower right corner of the screen.

"Interrupt/Resume" button pause the research.



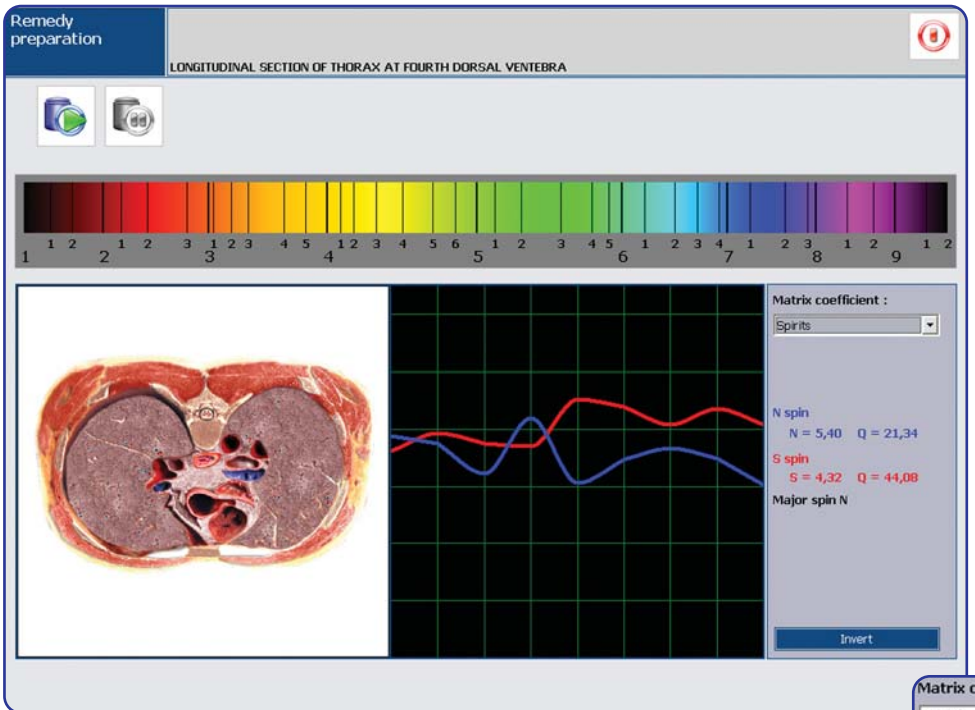
Scale point evaluation of the NLS-analysis results:

1. Level of decreased functional activity.
2. Level of optimal regulation.
3. Shift of characteristics toward a higher level, or stress state of the regulatory system.
4. A breakdown of the regulatory mechanisms.
5. Compensated disturbances of the adaptation mechanisms.
6. When the adaptive mechanisms become dysfunctional, pronounced pathological conditions occur.

Diagnostics

It is important to remember that these points of evaluation largely characterize thedynamics of changing pathological conditions. They show the increase or decrease in the adaptive reserves available. This means that stable pathological conditions may not register significantly at this time.

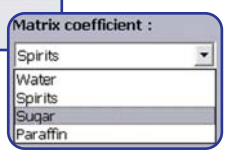
Remedy preparation procedure



Natural frequencies taken from a pathological nidus are converted into the opposite polarity but still remain identical in form. Then, as converted amplified information, they are recorded on a matrix of water, ethyl alcohol, lactose, or paraffin.

For acute purposes it is better to use water, which is effective for 2-3 weeks.

Alcohol is better for treating acute or chronic conditions and to prolong the effectiveness of an alcoholic solution, some medicinal herbs are recommended. The effectiveness of preparations made in alcohol lasts up to 2-3 months, whereas, those made in solutions of alcohol with added medicinal herbs last for up to 4-6 months.



It is also possible to treat chronic disorders using preparations recorded on lactose, which remains effective for 6-9 months.
But note that lactose used to make preparations should be moistened with alcohol or water.
In treating acute processes take 4 to 8 drops or 'peas' at a time, three times a day.
For children under 14 the dose should be 2-3 drops less.

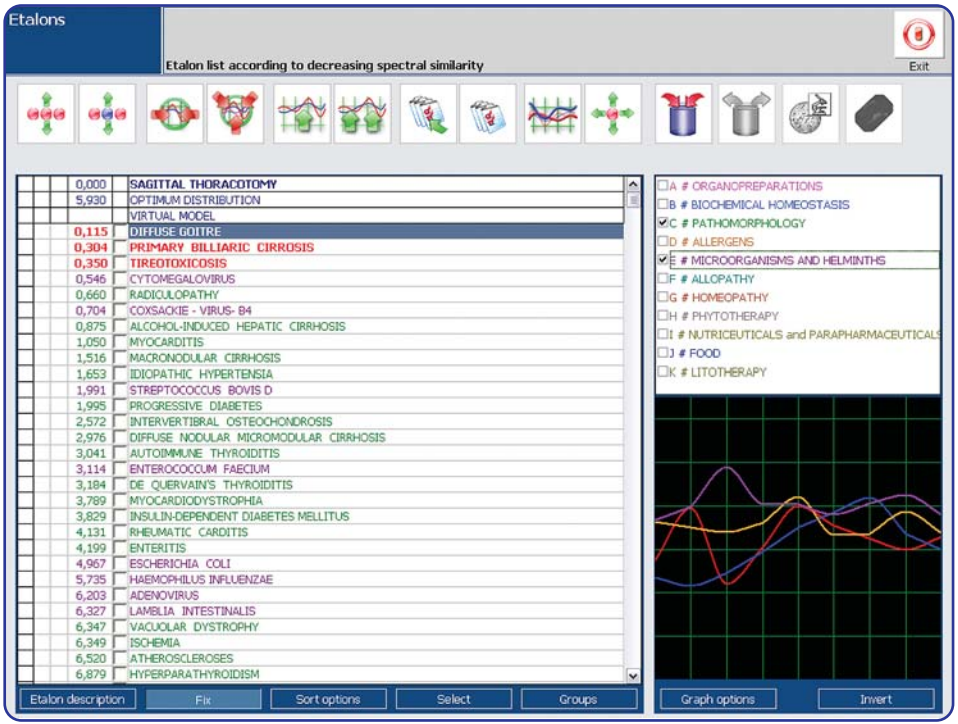
In treating sub acute or chronic disorders 2-4 drops (peas) should be given once or twice a day. For children under 14 the dose should be 1-2 drops less.
Paraffin, by application, can be used to treat skin disorders and peripheral nervous system disturbances (radiculitis, neuralgia, and lumbago).

In treating acute processes it is possible to record 2 to 4 preparations on one matrix at a time.
In treating sub acute chronic processes the number of preparations can be increased to 6- 8.
Remember that the more amplified the voltage of the recorded preparations the fewer preparations that can be recorded on one matrix.

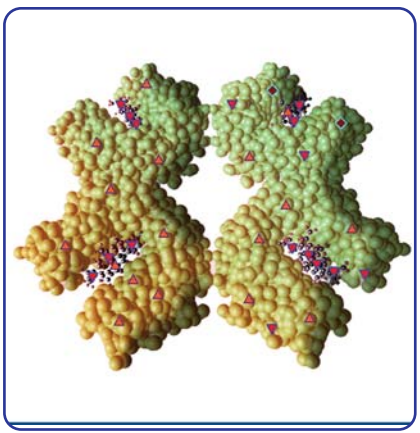


Press **"Start making"** to begin making a preparation, and **'Stop'** to interrupt the preparation procedure.

"Invert" reverses the polarity of the signal.
In this mode there is an opportunity to record preparations in succession from several pathology nidi existing in one organ (section of the body). This is accomplished by pressing the left mouse button with the arrow pointing to the nidus selected.



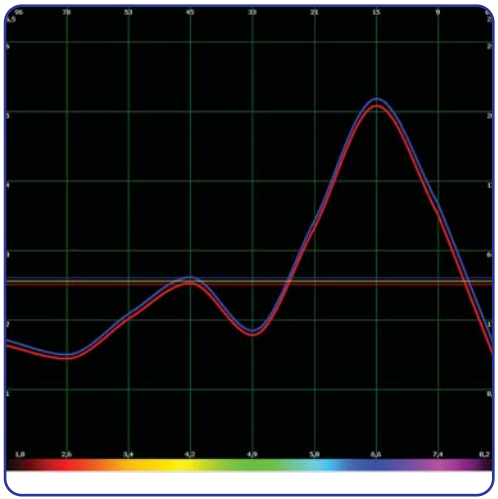
Every organ and every cell has its own specific and distinctive oscillation. The oscillations are stored in the computer memory and can be displayed on the screen as a graph, which represents the condition of the information exchange between an organ or tissue and the environment. Every pathology has its own individual and distinctive graph. The computer memory also stores a very large number of pathological processes taking into account rate of evidence, age, sex and other variations. After frequency characteristics are read from tissue, the apparatus compares spectral similarity with stored processes (healthy tissue, pathological tissue, infection agents) and then selects the closest pathological process or tendencies to its appearance.



By this method of analysis it is possible to trace the condition of the red (S) input signal and the condition of the blue (N) output signal, which are displayed as graphs on the screen.

From the shape of the graph it is possible to determine which of the reference

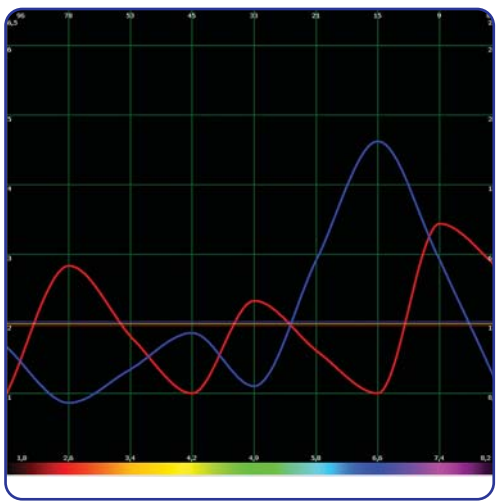
(etalon) processes it appears to be closest to and to check the spectral similarity of the graph plotted for the patient.



Basis of "Metatron" apparatus' works is measuring of the noise rate in a system. We consider any system (organ, tissue, cell, etc.) as cybernetic system ("black box"). Comparing input signal (red, S) and output signal (blue, N) we can evaluate system's condition and dynamic of entropy increasing - entropic potential. In ideal system input and output signals are similar - it means that there's no noise in the system. And vice versa, if system does not respond to control signal - we can say that the system is not functioning. In practice we work with intermediate values, evaluating which we can say about acuteness, priority and dynamics of process development.

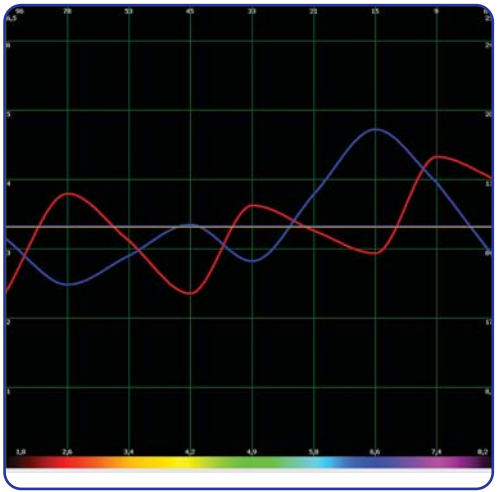
To make it more convenient we use graph amplitude scale in which 0 dB means 0 points and 260 dB means 6.6 points.

Any tissue has a natural noise rate at about 8.5 - 64 dB, that means 1 - 3 points. We consider graph amplitude within 1 - 6.5 points, numbers exceeding the bounds means that the system is not functional.



Self resonance frequencies have a great importance in graphs analysis. The higher organized tissue is - the higher it's maximum frequency, for example, bones have maximum amplitude 1.8 Hz, and brain cortex - 8.2 Hz.

Mind that we do not consider S and N graphs separately. In that case they do not have a sense. We consider them together, focusing on frequencies that have more dissociation and on the graph that placed higher. Isolines can simplify process of analysis. Analyzing their position and point rate we can reveal acuteness and dynamics of the process, it will help greatly in further treatment.

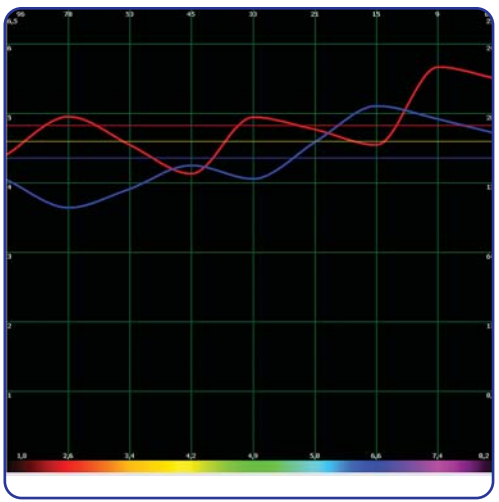


Using "Spectrum" function we can see graph of the process it three isolines: yellow one is the simple average of both graphs, blue and red ones are isolines of input and output signals.

To analyze the process we use several factors. To estimate compensatory reactions we analyze interval between N and S isolines. The process is compensated if interval is less than 0.25 points, in other case the process is decompensated.

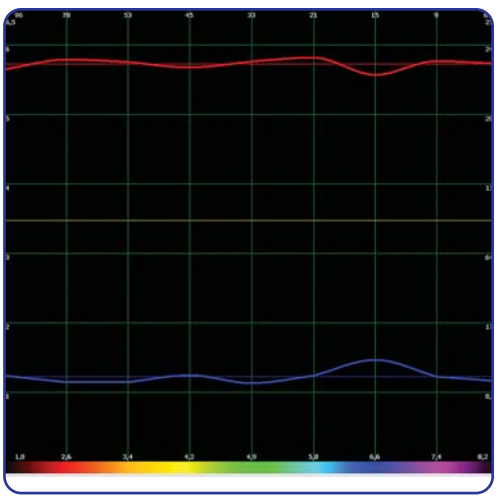
The most productive is compensated process: it can be regulated, self reserves of the system can resist pathological process without assistance, at the same time reserves of tissue and organism work synchronously. There are two types of decompensated processes: anabolic and catabolic.

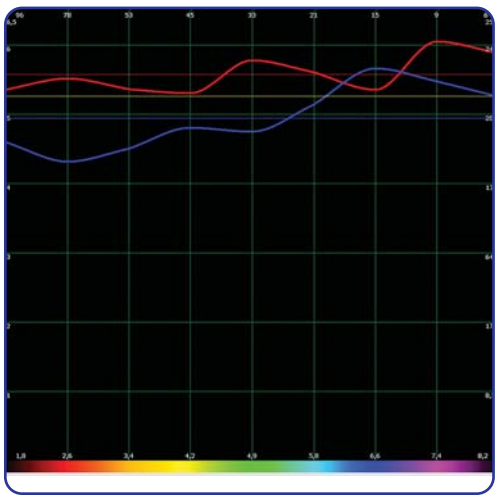
Anabolic process characterized by positive prognosis of clinical course and goes with energy and information discharge. In that case blue isoline is higher than red one. Decompensated anabolic process characterizes quick acute processes (phlegmon, abscess, and pneumonia, often with autoimmune allergy component) with decreasing of adaptive functions of organism and high hyperergic tissue reactions. Suppressing of the disease goes at tissue level. Reserves of compensations of single tissue quickly run out and process course becomes crisis one. If there are enough reserves, process comes to compensated stage, in other case - into catabolic process, it means loss of control by organ or tissue.

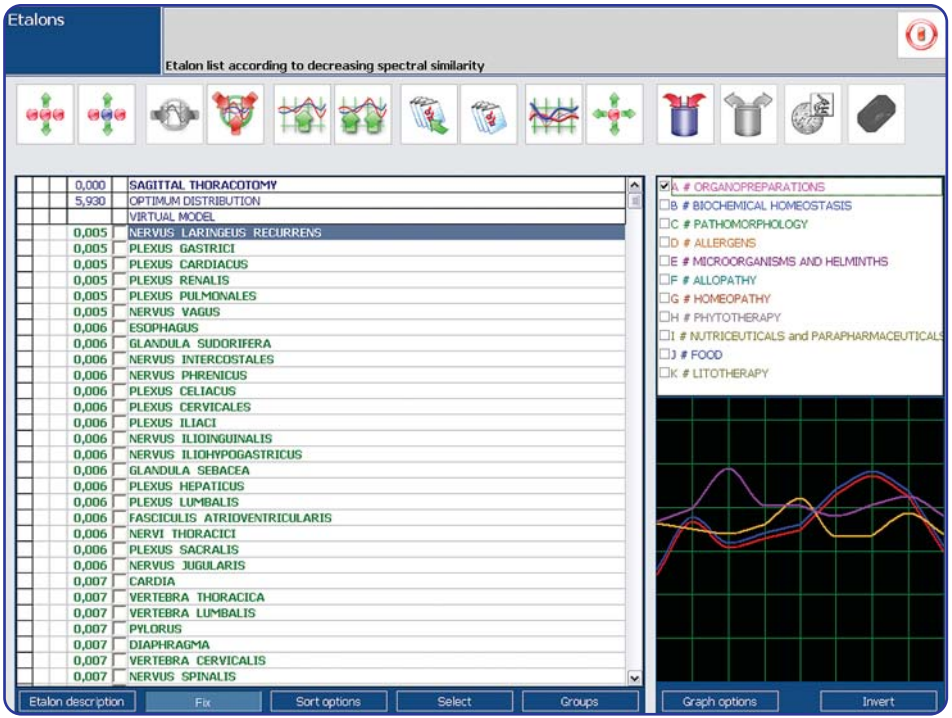


At catabolic process red line placed higher than blue one. This process' course is characterized by absorption of information and energy. At initial stage of catabolic process it can be unpronounced, it characterizes chronic diseases and in the same time middle isoline has 3.5 points and higher. With further development of catabolic process middle isoline goes up to 5.5 points and graph voltage is decreasing (voltage means interval between peaks of graph and it's isoline).

The tissue cannot react to input signal - interval between red and blue isolines increasing, organism spends a lot of energy to support tissue's reserves and at the same time reaction of the tissue decreasing. That kind of development is typical for tumors. Non-cancerous tumor are characterized by a small interval between isolines (1 - 1.5 points), cancerous tumors are characterized by interval 3.5 - 4 points. At initial tumor graph has minor voltage on self frequency, at metastatic - graphs are flat. To define the acuteness of the process it is necessary to analyze dissociation of graphs and position of average isoline. At initial acute process significant dissociation can be traced at one frequency and average isoline cannot be higher than 2.5 points. The secondary acute process average isoline goes up to 3.5 - 4 points and higher, dissociation of graphs on more than one frequency.







"Group List" contains a list of etalon groups.

ORGANOPREPARATIONS

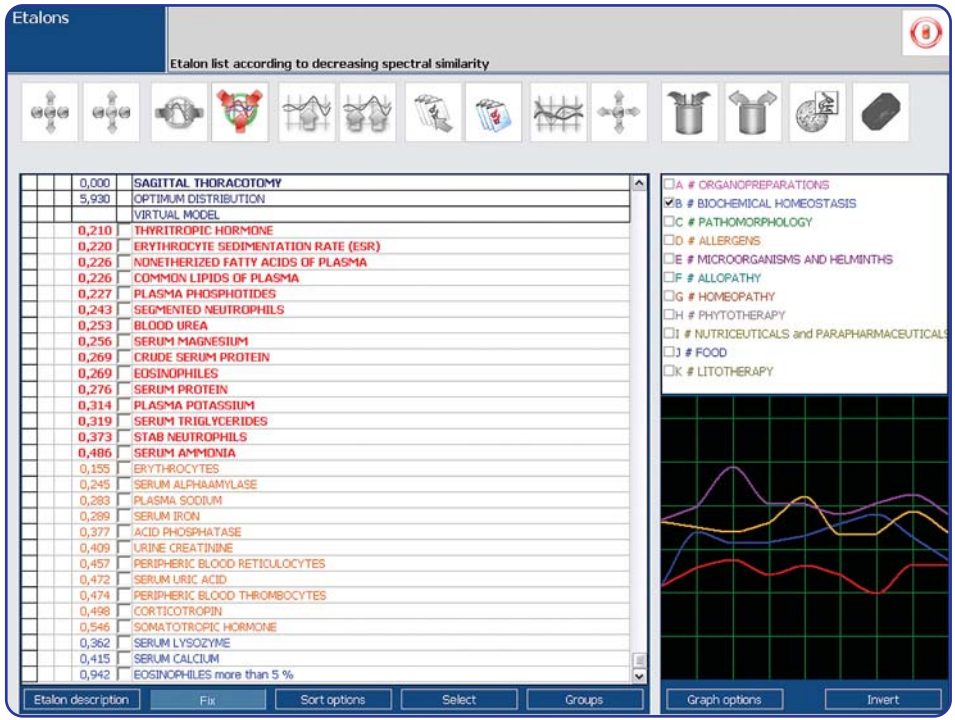
Contains the etalons (standards) of the spectral characteristics of healthy body tissues.

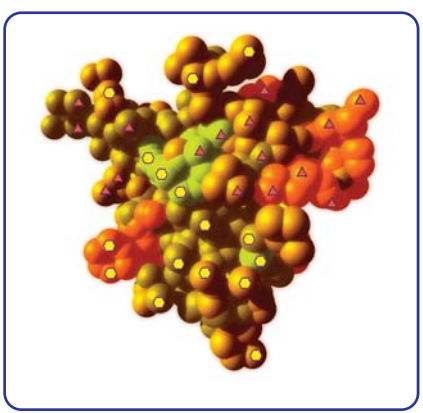
The etalon list is arranged in a decreasing order of spectral similarity to the object under investigation. Healthy tissue has similar input and output signals (the red and blue graphs respectively).

The greater the similarity between the organ preparation and the object under investigation, the more intact the tissue will be. Conversely, the greater the difference the greater the damage will be to the tissue under investigation.

This program carries out a qualitative evaluation of the main biochemical factors by evaluating the wave functions of body tissues. This evaluation is carried out using the NLS - analysis mode.

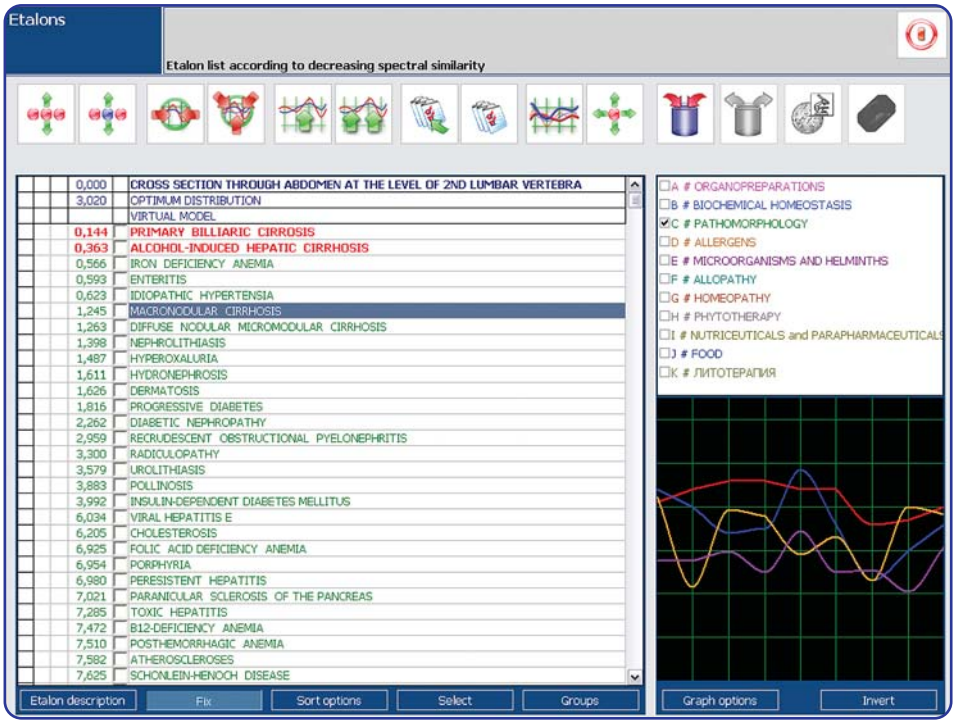
Note that the lowest values of enzyme (hormone) concentration within the normal bounds correspond to 2 in the graph. Whereas, the highest values within the normal bounds correspond to 6. The values of the factors equal to 3, 4 or 5 correspond to the 'mode' of the factor, and the extreme values 1 and 7 characterize biochemical factors beyond the physiological norms, lower and higher respectively.





The standard rules for making biochemical analysis using conventional clinical methods should be used when analyzing the computer results.

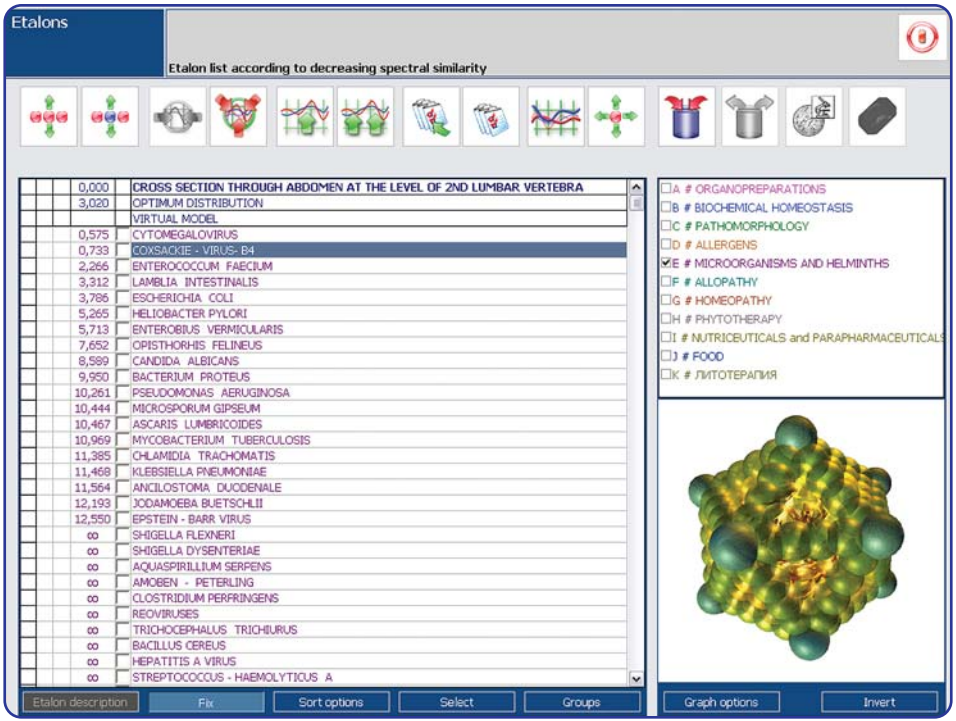
PATOMORPHOLOGY

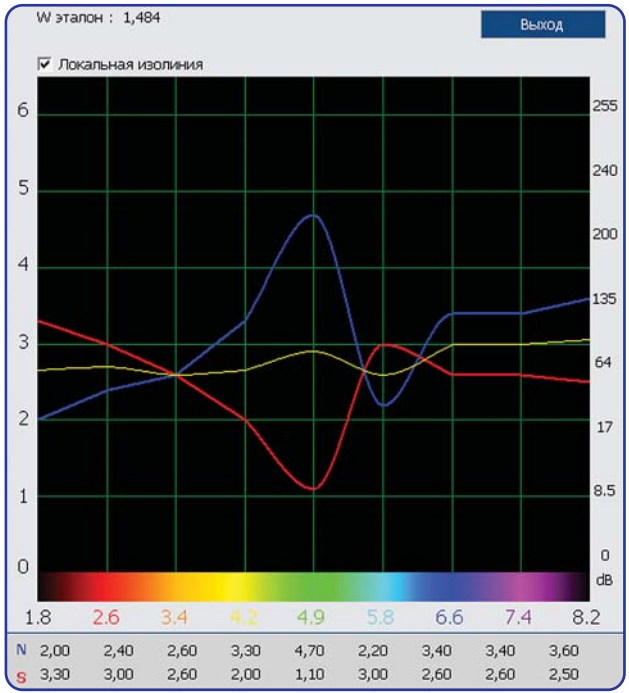


This shows a list of the etalons of destructive processes.

This section holds basic patomorphologic conditions peculiar to single tissues of an organism. Every destructive process has a distinctive graph.

In this section are recorded the major characteristics of infection agents: - bacteria, viruses, mycoplasma, rickettsias, fungi and helminths. This presents changes in the form of high peaks of dissociation within the frequency range representing the natural frequencies of the tissue.





For example Opisthorhis felineus has a high dissociation in frequency - 4.9Hz - parenchymatous liver tissue and bile-excreting tissue. These tissues are known to be largely affected by trematodes Opisthorhis felineus-

- opisthorchiasis.

Recorded in the group **ALLOPATHY** is the wave characteristics of the principal chemical (synthetic) medicinal preparations used in conventional medicine.

HOMEOPATHY
In this group the wave characteristics of homeopathic preparations are recorded.

PHYTOTHERAPY
In this group the wave characteristics of medicinal plants growing in the Midwest of Russia are recorded.

NUTRICEUTICALS
In this group the wave characteristics of biologically active supplements (BAS) produced by major Russian and foreign companies who produce and supply nutritional supplements are recorded.

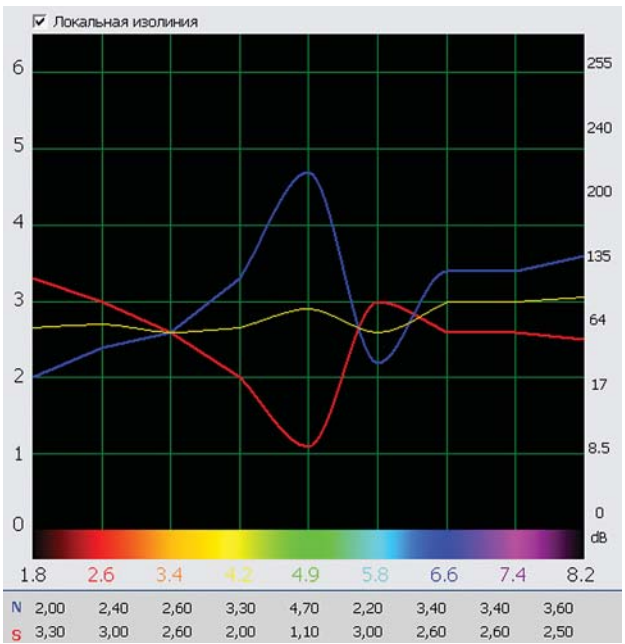
ALLERGENS
In this group wave characteristics of food, domestic, animal, vegetable, and industrial allergens of all kinds are recorded.

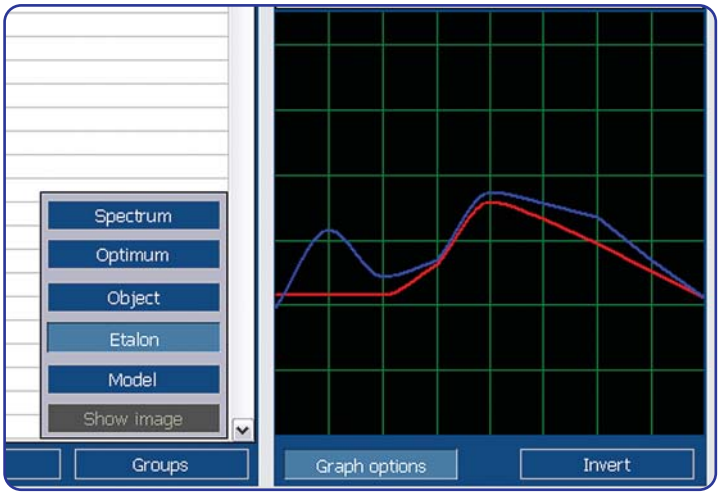
FOOD
In this group wave characteristics of food separated into groups (meat, fish, dairy, vegetables, fruits, oil, drinks, spices, etc.) are recorded. Dietetic foodstuff, due to their therapeutic action recommended to use, highlighted in green color. Not recommended foodstuff highlighted in black, neutral - in orange.

LITHOTHERAPY
In the program spectral characteristics of gems and minerals are represented together with description of therapeutic action. By pressing "Picture" button you can see pictures of more than 200 minerals. Program can choose a mineral for a patient, suitable according to spectral characteristics for permanent possession or for specific diseases treatment. Using specific spectral characteristics of minerals, modulated and radiated by the apparatus, you can treat acute and chronic diseases. To start this mode press "Lithotherapy" button.

Natural frequencies of the tissues within the following standard frequency band:

- 1.8 skeletal system;
- 2.6 coarse connective tissue, joints, and cardiac valves;
- 2.6 - 3.4 loose connective tissue, striated muscular, and cardiac muscle;
- 3.4 unstriated muscular tissue.
- 4.2 tessellated epithelium of the digestive tract;
- 4.9 stratifies squamous and columnar epithelia. Parenchymatous liver tissue and tissue of the biliary tract;
- 4.9 - 5.8 kidney tissue epithelium and reproductive organs;
- 5.8 lymphoid ring of the pharynx, upper section of the respiratory tract, lymphatic system, spleen, ovaries, and prostrate;
- 6.6 peripheral nervous system, bronchus epithelium, adrenals, and thyroid;
- 7.4 central sections of sensory analysers except the optic ones, and sub cortical structures of the brain, pons cerebelli; cerebellum, limbic system and lungs parenchyma;
- 8.2 retina, optic nerve, cerebral cortex.





By pressing **"Display"** button following drop list appears:

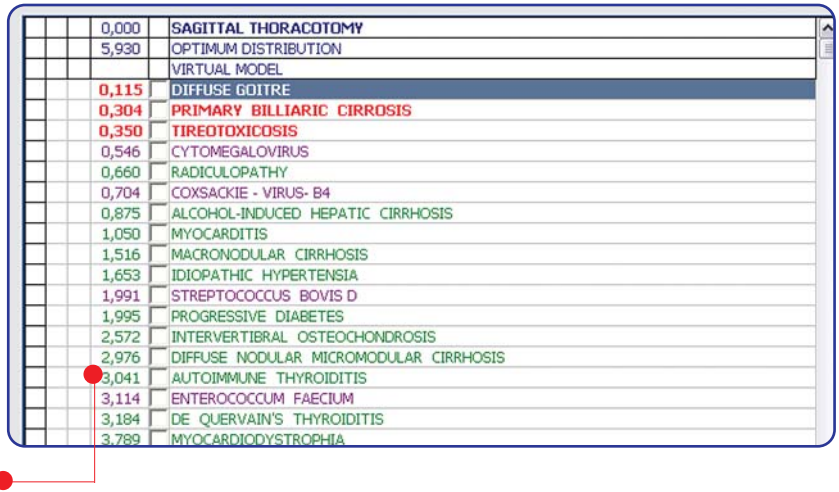
"Object" - graph lines of lilac and orange color, display a graph of the examined biological object, organ or tissue plotted in the course of the investigation.
"Etalon" - thin graph lines of red and blue colors, represent a graph of the chosen reference process.
"Spectrum" - pressing this button displays an enlarged graph.
"Optimum" - a yellow graph shows normal (Gaussian) distribution of the signal in standard frequency.
"Model" - thick graph lines of red and blue colors, show a graph of the virtual model.
"Invert" - enables the polarity of the graph to be inverted.

When "Display" button is pressed, picture of microorganisms or minerals is shown.
The button **'Clear'**, above the list of etalons, removes the dispersion analysis from all groups of etalons.

Etalon testing

This program offers a unique opportunity to make a comparison of all stored preparations by the extent of their spectral similarity to a given pathological nidus.

The marked area represents the values of spectral difference (D) between these etalons and the object. If the value is less than 0.425 it means that the spectral similarity to the object under investigation is over 95% with the etalon being marked red. It is clinically significant if the value is within 0.750 as it shows there are statistically true manifestations of the process (the similarity to the object under investigation is not less than 85%).



The mathematical addition of spectral characteristics of information preparations provides an opportunity for obtaining the best combination of remedies, by an approximation to the spectral characteristics of these pathological processes in selecting the most efficient remedy. The possibility of combining frequencies of pathological agents provides an opportunity to experimentally make 'virtual models' of various pathological processes. It is essential to make virtual models when choosing groups of remedies that produce the best results when combined.

Addition of the etalons in order to build a virtual model is done by right-clicking the first column in the etalon list against the selected etalon. Deletion of the etalon's virtual model is done with the right mouse key. Switching-off of virtual modeling is done by clicking the icon [X] on the first column in the etalons list against the virtual model. If spectral differences (D) of any of the added preparations and the object in particular prove much greater, than those of the virtual model of their composition, the synergy of preparations occurs. If the value is less we observe an antagonism of their interaction.

		0,000		CROSS SECTION THROUGH ABDOMEN AT THE LEVEL OF 2ND LUMBAR VERTEBRA
		3,020		OPTIMUM DISTRIBUTION
×		0,101		VIRTUAL MODEL (P < 0.05)
●	1	0,144		PRIMARY BILLIARIC CIRROSIS
●	1	0,363		ALCOHOL-INDUCED HEPATIC CIRRHOSIS
		0,566		IRON DEFICIENCY ANEMIA
●	2	0,575		CYTOMEGALOVIRUS
●	2	0,593		ENTERITIS
●	2	0,623		IDIOPATHIC HYPERTENSIA
●	1	0,733		COXSACKIE - VIRUS- B4
		1,245		MACRONODULAR CIRRHOSIS
		1,263		DIFFUSE NODULAR MICROMODULAR CIRRHOSIS
		1,398		NEPHROLITHIASIS
		1,487		HYPEROXALURIA
		1,611		HYDRONEPHROSIS
		1,626		DERMATOSIS
		1,816		PROGRESSIVE DIABETES
		2,262		DIABETIC NEPHROPATHY
		2,266		ENTEROCOCCUM FAECIUM
		2,959		RECRUDESCENT OBSTRUCTIONAL PYELONEPHRITIS
		3,300		RADICULOPATHY

Control elements of the "Etalons" forms

The **"Express forecast"** key effectuates the virtual activation of the pathological process.
A process can be at its remission stage, whereas we are interested in the process at the stage of its activation. By clicking this button you fine-tune the selected reference process to color response curves of the researched object.

"Forecast" - by clicking this button you fine-tune all reference processes located in the etalons catalogue.

"Vegeto Test" - is the mode of internal vegetative resonance testing in which the preparation is selected from the etalon directory.

"Reprinter" - enables the recording of any preparation from the etalon directory on to a matrix (water, alcohol, lactose, or paraffin).

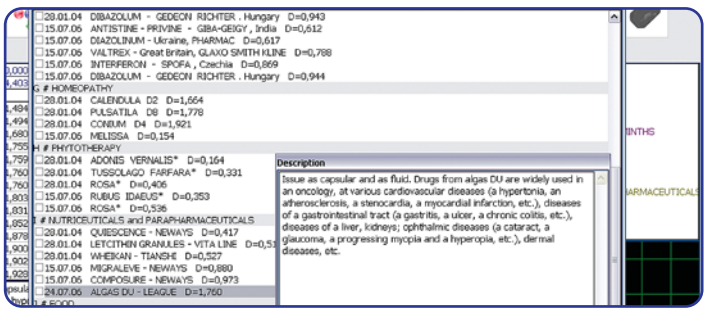
"Entropy analysis" - carries out a 2-factor entropy analysis of the pathological process.

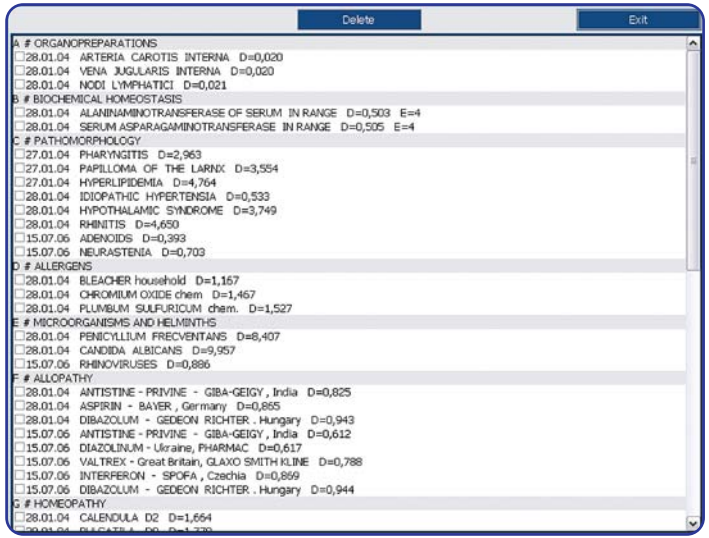
"NLS-analysis" - carries out a multifactor entropy analysis of the pathological process (biochemical homeostasis of the system).

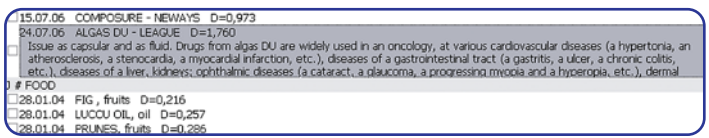
"Etalon-object" - carries out a dispersion analysis with reference to an etalon chosen at random with the object functions assigned to it.

"To epicrisis" - print an etalons with a high spectral similarity to the researched object. You can send to epicrisis several etalons at once marking them to the left of their names. To mark several etalons, click and hold left mouse button and move vertically over a column to the left of their names. Also you can mark first etalon in the list, then move mouse over the last one, hold **"Shift"** key and click left mouse button. After you press **"To epicrisis"** button, all marked etalons will be moved to epicrisis. You can remove marks by pressing cross icon in upper line.

"See epicrisis" - displays on the screen the list of etalons chosen for printing. You can manually add remarks here (for example recommendations for preparations use). To do it click twice on the etalon, **"Description"** window will appear, type in the text and press **"Save"** button.







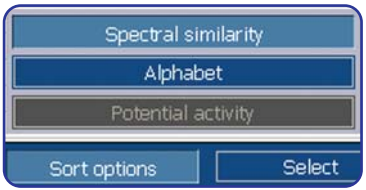
"Absolute model" - by means of complex program algorithm, which makes possible to see all possible combinations of etalons, maximum optimized virtual model is produced.

"Imperative model" - is a function analogous to the "Absolute Model" except that one of the etalons (control) is chosen randomly and introduced into the calculations of the virtual model to evaluate its spectrum in the model building.

"Bacterial analysis" - (accessible only if dispersion of the etalon from 'Microorganisms' is less than 0.750, which may suggest presence of non-activity of this microorganism in biological tissues) starts the bacterial analysis process.

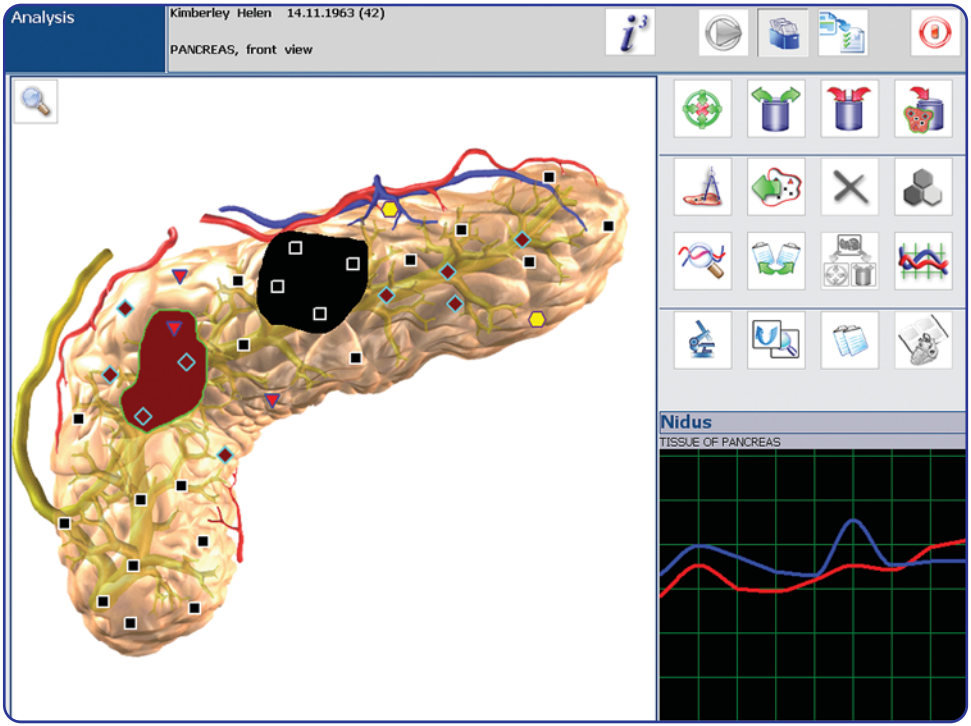
"Elimination" - enables multi-factored elimination analysis to be made by excluding (eliminating) the frequencies of individual agents (generally of a bacterial or viral nature) from the spectrum of the biological object under investigation. This reveals the principal process (frequently of a blast nature) disguised by these agents.

"Lithotherapy" - starts a mode of treatment with use of spectral characteristics of chosen mineral. Control elements are the same as in "Meta-therapy" mode.



Keys located under the etalons list:
"Etalon description" - displays the detailed description of the selected etalon.
"Fixing" - allows fixing these three lines in the top part of the list:
Biological object name.
Optimal distribution.
Virtual model.

"Sort" - opens a drop-down list, which allows selecting the modes of etalons arrangement by spectral similarity, alphabetically, by potential activity (rate of change of the etalon dispersion (d) in the forecasting mode)
"Filter" - allows selecting a group of etalons similar to each other by the last word in their name.
"Groups" - allows defining the number of etalon groups different by last word of their names, in one system. In the **'Groups'** mode you can select several etalon groups (with the right mouse button) which will be returned after clicking the **'Filter'** button.



The buttons under the organ's picture can be either depressed or pushed up; in the depressed condition organ's respective elements are depicted.

"Text" - allows acquiring information on particular fragments in the picture. To this effect you have to press the "Text" key, which will display icons in the picture, shaped as green daggers. To read the text, stop the mouse cursor on the dagger, and then a message will appear in the square next to it. Left-clicking the dagger se nds the message to print. To this effect put ticks in squares to the left from the text of the message, in the unfolded form. In this mode there is a possibility to quick-cross for examining the picture connected with this particular research with the help of icons. To this effect press the **"Icons"** key, this will display icons in the picture. In order to see what a picture a particular icon can unfold, you need to stop the mouse cursor on the icon, then the picture name will appear in a square next to it, and in place of the graph there will be its image with icons. The color square around the icon denotes the functional condition of the organ. The color of the square corresponds to the colors described in **"Program setup"** section; clicking an icon unfolds the respective organ for researches.

The **"Description"** key shows the description of a biological object represented on the picture.

The **"Nidi"** key allows either to hide or to show the previously selected nidi on the organ's picture.

When **"Nidi"** key is pressed, the graph to the right of the organ corresponds to the nidus which has been rounded by green contour. You can also switch the locus by clicking the left mouse key, having pointed the mouse cursor at the locus.

"Black-and-white/Color screen" - picture of an organ in black-and-white or color scheme.

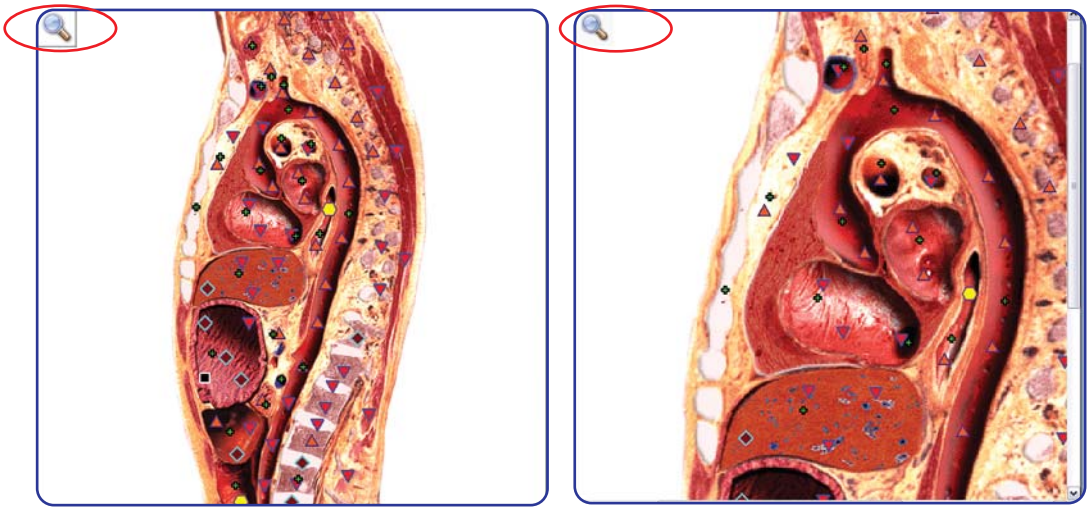
"Ultrastructure" shows histological, molecular and bacterial researches. You can unfold the ultrastructural researche by clicking a respective icon.

"Create meta-probe" - this function is analogous to "Reprinter" function, but inverting and additional processing of the signal carried out in automatic mode from selected pathological nidus.

"Treatment results" - here you can analyze results of "Vegeto-test" and "Meta-therapy" carried out for chosen organ. When you pressed this button you are to choose the research, which you want to open.

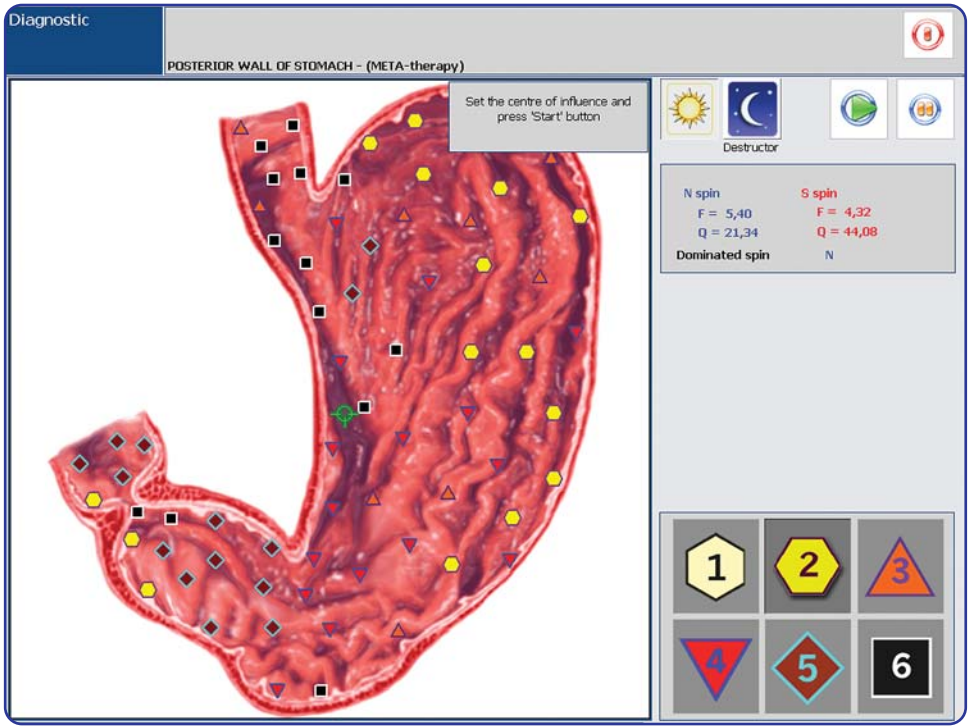
"Protector" and "Destructor" buttons are used to change the character of effect. In "Protector" mode wave function of healthy tissue is increased, resulting in activation of compensatory reaction of tissue. "Destructor" mode wave function of pathological agent is suppressed, resulting in decreasing of adaptive reactions level.

"Scale" - clicking the button with the "+" sign in the upper left corner of the picture allows to increase the picture's fragment. Then you must click on the picture and moving the mouse stretch the framework; then click the mouse another time after having selected the fragment to be enlarged. A repeated click on this button restores a complete picture from the fragment.



"Pinpoint nidus boundaries" - The program allows to precisely defining the pathology nidus boundaries by placing any number of points on the organ's projection, which will be additionally evaluated by clicking the button **"Pinpoint nidus boundaries"**.

"Comparative analysis" - a comparative analysis of the investigation results with the patient under dynamic observation.

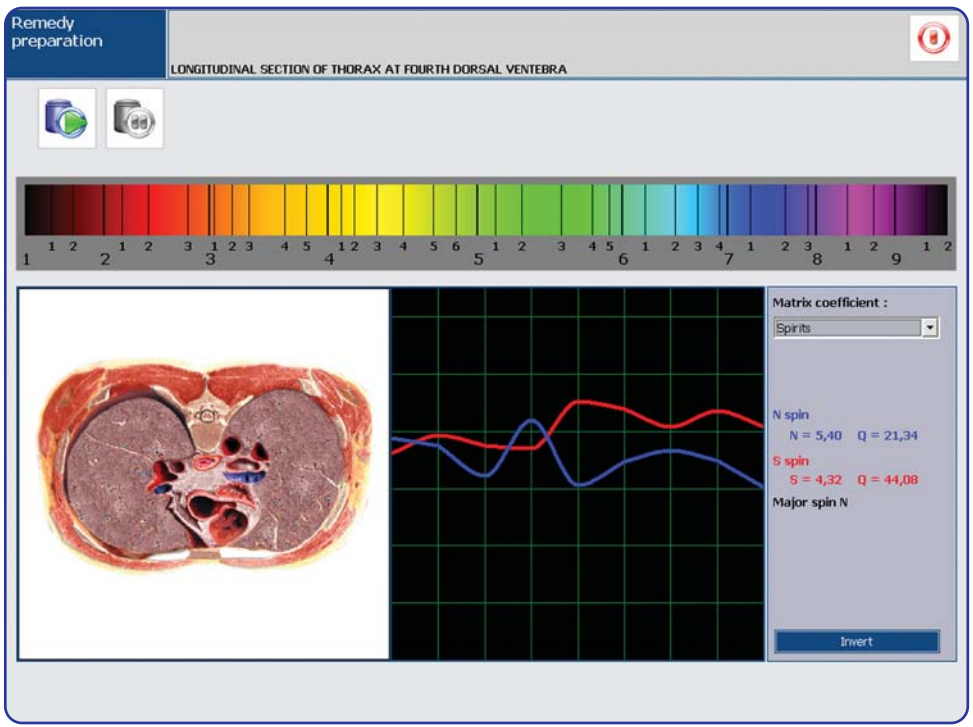


'Meta-therapy' - by pressing this button you will enter the mode that will produce a therapeutic effect to the organism using the GR unit. Select the centre of pathology press **"Start"** button.

"Vegeto-test" - utilization of the vegetative reverberate test mode opens ample opportunities and allows to enter into the contour measurements of own electromagnetic oscillations of the examined person's electromagnetic oscillations of etalons from the test set, i.e. the internal vegeto-test, or those taken with the help of a resonant chamber, such as choronomic vegeto-test; and to define efficacy and acceptability of biologically active food supplements and the allergic burden of the organism. To carry out the vegeto-test using a drug which is missing from the catalogue of etalons of biologically active food supplement allergens, we must enter the **"Analysis"** mode, place the examined drug in the resonant chamber, press the **"Vegeto-test"** button, and enter

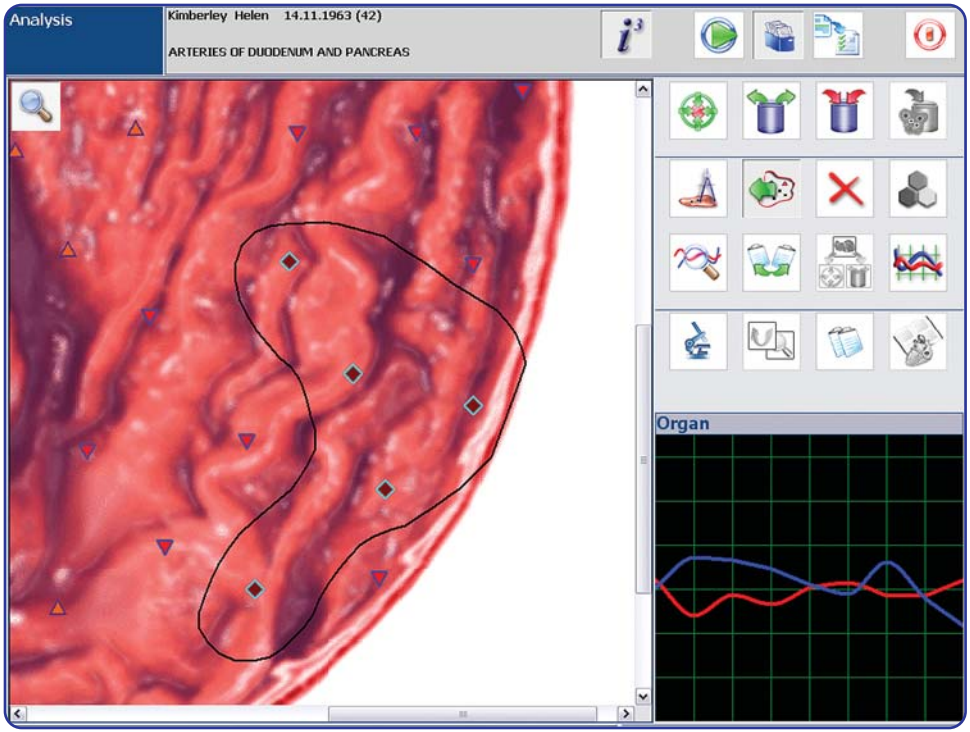
the name of the tested drug and click **"OK"**. The dynamics of vegetative reaction of the body to this drug is best evaluated in the **"Comparative analysis"** mode, where the amplification or weakening of the compensatory body responses is evaluated under condition of information effect from the tested agent.

The internal vegeto-test is carried out from the mode **"Etalons catalogue"**, meanwhile the drug is selected from the etalons list with the left mouse bottom, where it is already recorded in the form of a digital model. This mode is launched with the **"Vegeto-Test"** button.



"Reprinter"

Allows to record any preparation to a matrix. To record any preparation on a matrix select from the mode **"Etalon directory"** a preparation that is effective for the patient (the value 'D' is within 0.425) and press the button **"Reprinter"**. REMEMBER that all the medicinal preparations have been recorded in an inverted form so before making a preparation re-inverting must take place. To do this press the **"Invert"** button in the graph, select a matrix in the same way as making preparations, then press the **"Start preparation"** button.



"Evaluate points" button allows a more detailed evaluation of the selected area on the picture projection, in the scaled mode.

"Localization" is delimitation of a nidus with the most drastic changes of the structure. To define the boundaries you have to left click the picture projection and select the interesting area; a repeated left mouse click closes the contour.

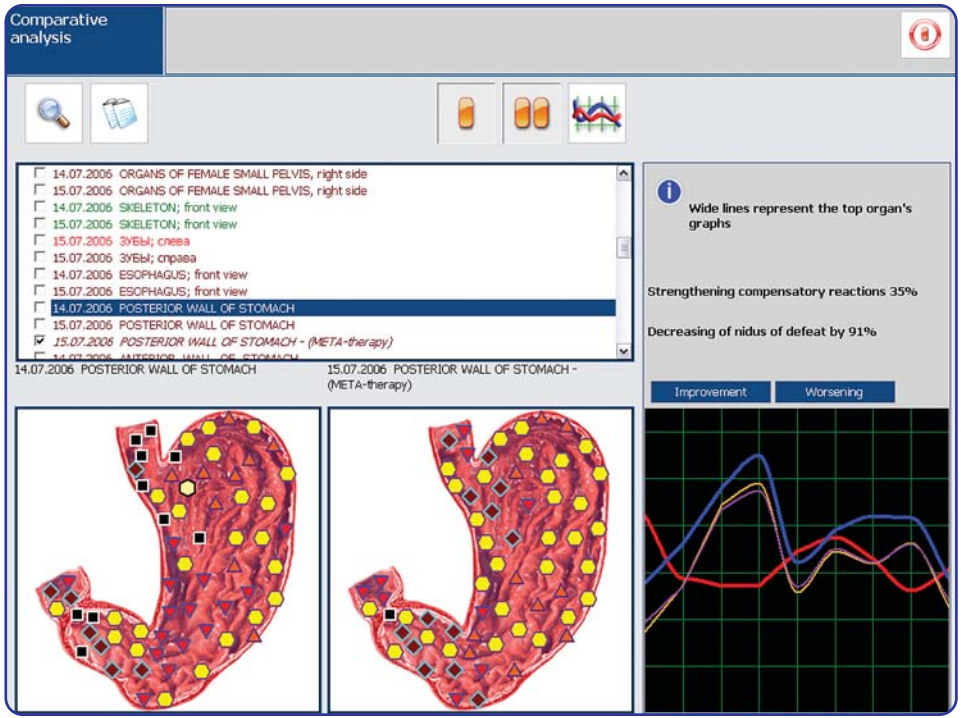
"Evaluate nidus" - evaluates nidi of the most expressed changes in a picture selected by the expert. The evaluation is done automatically, while the unmarked pictures and pictures without nidi are skipped.

"Remove selected" - allows removing the selected nidi. The nidi are selected with the right mouse key.

Clicking the **"Test"** button displays the **"Etalons"** form.

The **"Spectrum"** button displays an enlarged graph with values of signal amplitudes by spectrum frequencies.

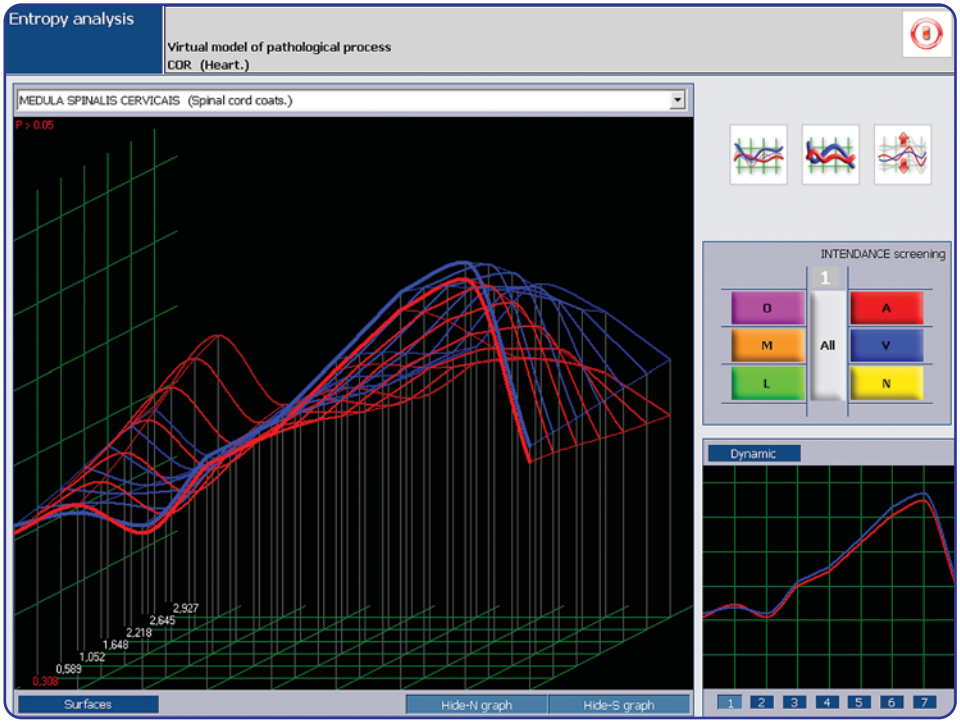
Comparative analysis

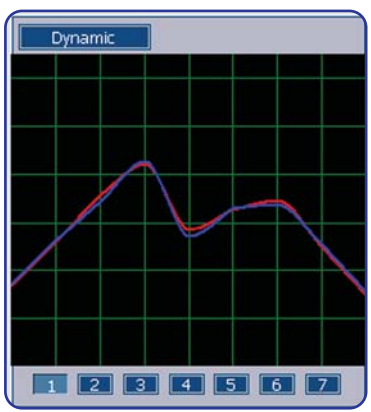


Comparative analysis allows to dynamically evaluate (numerically) the outcomes of the performed correction, as well as in the condition of compensatory reactions of the system after vegetative testing of the drugs. The left picture characterizes the initial condition, the right one - that in dynamics of the effect, or after some time.

"Auto search" button allows finding automatically the compared organs in the general card file. The **"Improvements"** and **"Aggravation"** buttons allow focusing on those departments in the tissue structure where any changes occurred.

Entropy (two-factor) analysis builds a mathematical model of pathological processes taking healthy tissue as the initial (zero) phase and a clinically pronounced form of a pathological process as the final one. Then makes a mathematical calculation for the graphs of a number of intermediate states. In the course of analysis the highest spectral similarity to any of the intermediate states or extreme states are determined. In this way the maturity of the process and the signs off a preclinical pathology are defined.

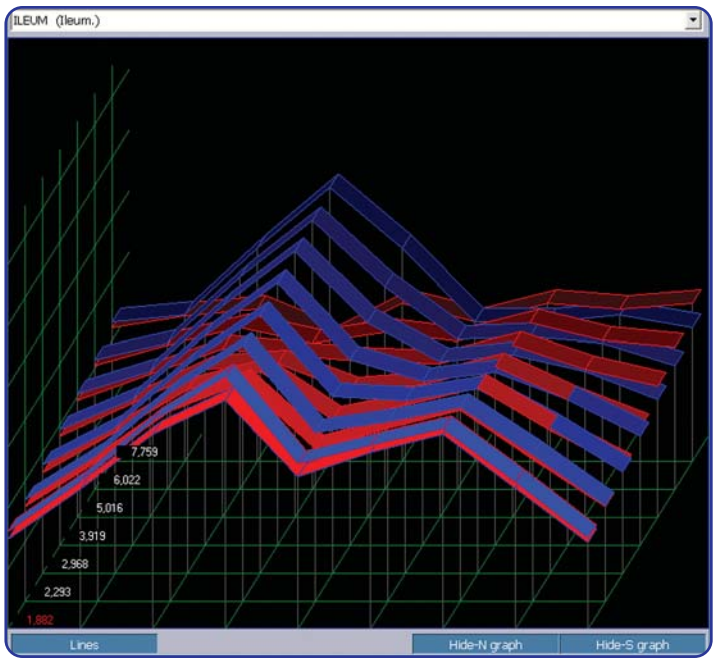




Remember that the values 1 and 2 of the entropy factor indicate that there are no tendencies in the development of the process under investigation. The values 3 and 4 indicate that there are preclinical phases in the process of development and that values 5 and 6 indicate that the process is mature. Low spectral similarity to the etalon (correlation over 1) but with an entropy factor as high as 5 or 6, indicates a remission state of the pathological process; as opposed to the low adaptive reactions of the tissue.

Entropy analysis

A small difference in the spectral similarity (dispersion) over the whole range of entropy factors from 1 to 6 indicates an acute process. The greatest spectral similarity is marked by a thick line on the graph and the digital value is marked in red, which in this example is 1.435. There are two buttons **"Conceal N (S) graph"** that enables the graphs to be viewed separately or altogether. Pressing the button then hides the corresponding graph.

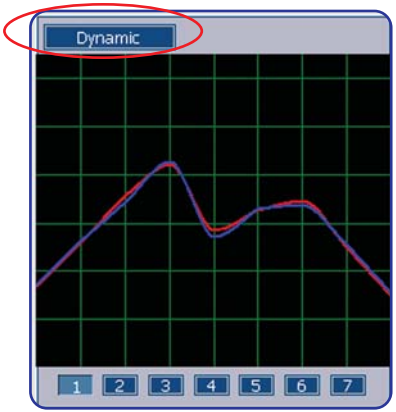


The graph can also be viewed in the **"Surfaces"** mode by pressing the **"Surfaces"** button. Release the button in order to return to the **"Lines"** mode.

The button **"Object"** displays the optimum values for this process.

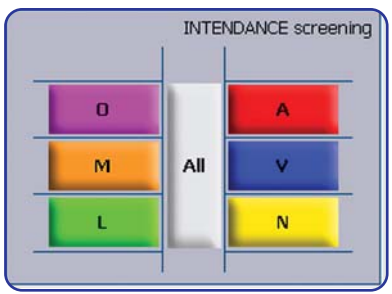
"Vera-Test" represents a graph with the closest spectral similarity.

It is possible to trace the dynamics of the process by pressing **"Dynamics"** above the graph.

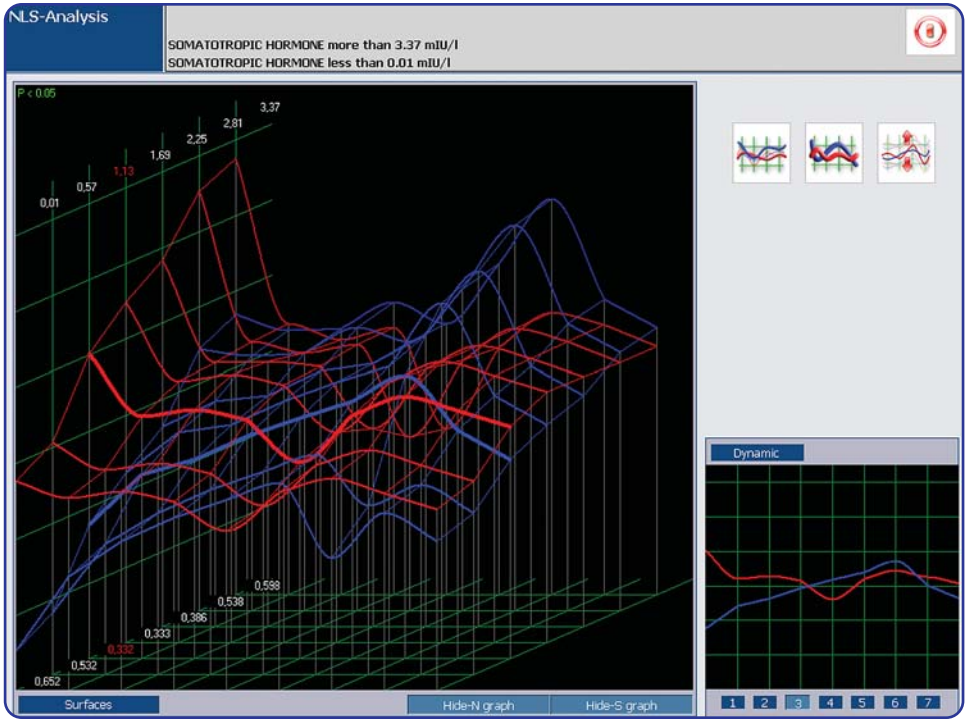


"Spectrum" displays an enlarged graph.
Press **"Exit"** to leave the Entropy analysis screen.

"Intendance-screening" - determines the extent of deterioration of different tissues in a developing pathological process. It is possible to trace these pronounced pathological changes in all groups of tissue structures simultaneously (by pressing the button **"ALL"**) or in individual morphological groups.
'A' (red) - represents the arterial system;
'V' (blue) - the venous system;
'N' (yellow) - the nervous system
'L' (green) - the lymphatic system
'M' (orange) - the autonomic system;
'O' (lilac) - the remaining groups of tissues not included in the above.



NLS analysis is available from "Etalon analysis" mode.



Multidimensional NLS - analysis is identical to entropy analysis except that in NLS-analysis all intermediate stages are recorded as etalons from patient's own body in different stages of the developing process under investigation. This builds a more accurate model of the pathological development. This is very complicated and laborious type of process to record, so NLS analysis is only used to evaluate malignant processes and biochemical factors.

Analysis of oncological processes by an NLS analysis graph makes it possible to trace the possibility of an irreversible state in the pathological development.

Growing amplitude of the output signal (the blue line in the graph) indicates intensification of the compensatory mechanisms.

On reaching the maximum value of the input signal, the red line on the graph may drop abruptly with high amplitude values of the input signal, which indicates a failure in the individual's adaptation mechanism and the development of an irreversible state.

The program was developed under the guidance of Vladimir Nesterov, director of the Institute of Practical Psychophysics, Vice-president of International Academy of Non-linear System Diagnosis, full member of IAICS.