

### The 70th Anniversary of Functional Diagnostics Department of Filatov Institute of Eye Diseases and Tissue Therapy of NAMS of Ukraine

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On the 30th of October 2018, Department of Functional Diagnostics of the Eye at SI "Filatov Institute of Eye Diseases and Tissue Therapy of NAMS of Ukraine" celebrated the 70th Anniversary.

N. V. Pasyechnikova, a corr. member of NAMS, Prof., Dr. Med.Sc., President of the Ukrainian Society of Ophthalmologists, Director of the Filatov Institute, chaired a special meeting of the Odessa region Society of Ophthalmologists. Representatives of Health Care Departments of the Odessa region and Municipal Administration, ophthalmologists of Odessa and the Odessa region attended the meeting.

"Department of Functional Diagnostics is the gold standard of world-class diagnostics where thousands of patients annually get their chance "to see the sun", emphasized Elena Teriaieva, Director of Health Care Department of Odessa Municipal Administration. For weighty contribution to the development of diagnostic methods in ophthalmology, professionalism, and many years of work, two specialists, board certified with the highest category, were awarded Certificate of Acknowledgement signed by the Prime-Minister of Ukraine while Department's leading ophthalmologists were awarded Certificate of Merit from Odessa Region Municipal Administration.

It should be noted that Filatov Institute of Eye Diseases and Tissue Therapy was founded on the 4th of April 1936. Afterwards, different specialized departments were formed. Department of Functional Diagnostics started with Laboratory for Functional Methods of Diagnostics of the Eye, which was founded as a structural division of the Research Institute of Eye Diseases named after Acad. V. Filatov on the 1st of January 1948.

The first head of the Laboratory, from 1948 to 1963, was Przhybylskaia Ianina Ivanovna, Cand. Med. Sc.; from 1965 to 1989 the Laboratory was headed by Professor Novokhatskii Aleksandr Sergeievich, Dr. Med. Sc. In 1975, the Group of Electrophysiology was branched off

in the Laboratory which was headed by Ruseiev Valerii Vasilyevich until 1986. Since 1989, the Laboratory for Functional Methods of Diagnostics of the Eye, which was renamed as Department of Functional Diagnostics, has been headed by Ponomarchuk Valerii Semenovich, Prof. Dr. Med. Sc.

At the present time, Department of Functional Diagnostics is the only highly-specialized department in Ukraine in which all major diagnostic techniques and up-to-date equipment are concentrated. This allows for the comprehensive specialized highly-qualified diagnostics of the functional state of the visual system through revealing the disorders in various ophthalmic and neural pathology. This includes electrophysiological studies (electroretinography, monitoring visual evoked potentials, objective visual acuity testing, phosphene current threshold and lability), various visual field tests (Automated perimetry exam, Goldmann visual field exam, Tangent screen exam, dynamic disadaptation scotoma test), tests for blood circulation of the eye and brain (ophthalmic rheography and rheoencephalography), complex tests of color vision and color vision abnormalities, light perception tests, oculomotor system functional activity tests (photomyostimulation), and ultrasound tests.

The Department collective, headed by Professor V.S. Ponomarchuk, are involved in the development and clinical studies on using ophthalmic electric, photo, and myostimulation for diagnostics and treatment of visual system pathology as well as in different neuroophthalmic, i.e vegetative ophthalmic, ophthalmic ergonomic researches.

Since 1991, 1 Doctoral and 12 Candidate Dissertations have been defended in the Department. The Dissertation *Early functional changes in the visual system and pathogenic mechanisms leading to their development in dysfunction of vegetative nervous system* for Doctor of Medical Science was defended by Ponomarchuk Valerii Semenovich in 1995.

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The Dissertation for Candidate of Medical science were: Tata Abdulkader (Syria, 1992), *Diagnostic significance of disorders in reciprocal interaction of photo and scotopic afferent systems of the visual system in retinal pathology*, 1999; Set Fiadoer (Ghana, 1994), *Diagnostic value of the modified method for assessment of electric sensitivity and lability in eye diseases*; Sudha Pundi Narayanan (India, 1997), *Peculiarities of cerebral circulation in patients with high blood pressure against the background of vegetative dysfunction*; N.I.Khramenko (Ukraine, 1998), *Changes in the functional state of the visual analyzer; blood flow to the eye and brain in hypertensive patients against the background of vegetative dysfunction*; Ridha Nagmushi (Tunis, 1998), *The effect of phosphene electric stimulation on the main functions of the visual system, blood circulation in the eye and brain in patients with acquired uncomplicated myopia*; S.B. Slobodyanyk (Ukraine, 1999), *Therapeutic effect of phosphene electric stimulation on the functional state of the visual system and regional circulation in the brain and eye in patients with amblyopia*; A.N.Lavrenko (Ukraine, 2000), *Hypothalamic mechanisms of a therapeutic effect of phosphene electric stimulation*; A.G. Chaura (Ukraine, 2001), *The role of vegetative nervous and immune systems*

*of the body in the realization of the therapeutic effect of phosphene electric stimulation*; V.S. Drozhenko (Ukraine, 2002), *The effect of the modified method of phosphene electric stimulation on the functional state of the visual system in patients with partial optic nerve atrophy*; O. Yu. Terleckaja (Ukraine, 2005), *The efficiency of new method of phosphenelectropuncture in the treatment of patients with accommodative dysfunction*; Kefi Naisan (Syria, 2013), *Diagnostic significance of the improved method of assessment of the oculomotor system mobility and visual system lability in patients with myopia and macular degeneration*; V.A. Putienko (Ukraine, 2018), *Efficacy of a combined method (phosphene electric stimulation and photomyostimulation) in the complex treatment of patients with primary open-angle glaucoma*.

Annually, over 190 thousand examinations, both routine and methodologically complex, are performed at the Functional Diagnostics Department with the purpose to analyze comprehensively the state of visual functions of each patient. In addition, one can undergo procedures of stimulation therapy on equipment which has been designed on the basis of the Filatov Institute and has passed a thorough multi-year approbation.

