Fundamental Medicine

I.M. Sechenov First Moscow State Medical University

Degree or qualification is awarded: Researcher. Research Teaching Fellow

Language of study: **Russian, English** Mode of study: **full-time, extramural**

Duration: 6,480 hours

Availability of free education: yes

Price: **312 000 rubles**

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The professional area of the Ph.D. program graduates includes public health protection. Types of professional activity of Ph.D. graduates: research in the field of public health protection; improvement of quality and age of human life by means of fundamental research in biology and medicine; teaching activity in the field of higher education.

The training program includes areas of specialization, as well as courses aimed at preparing for teaching and research activities, with an obligatory in-depth study of foreign language, history and philosophy of science.

Training of Ph.D. students is conducted according to individual plans with a possibility of selecting additional areas of specialization, one or more foreign languages.

Practical training of Ph.D. students is conducted in accordance with the program on the basis of four university hospitals, seven research institutes, the university research center, and departments of the university.

Upon completion of the program Ph.D. students represent their research work. According to results of the presentation a state-recognized diploma is issued.

Specializations within this programme

14.03.01 Human Anatomy

Area of specialization: Human anatomy

It studies the origin and development, shapes and structure of the human body; studies organization of the human body at various levels (from organismic to ultramicroscopic and molecular) taking into account the multiple diverse and dynamic formative factors (age, gender, body type, etc.).

14.03.02 Anatomic Pathology

Area of specialization: Anatomic pathology

It includes solving theoretical (general and special pathology of human and animals) and practical (diagnosis, treatment efficacy, prognosis, iatrogenesis, etc.) problems of medicine. The objects of its attention are the cells, tissues and organs studied in vivo (biopsy and surgical material) and postmortem (autopsy material).

14.03.03 Pathological physiology

Area of specialization: Pathological physiology

It includes the studies of the causes, mechanisms of development and outcomes of pathological processes.

14.03.05 Forensic Medicine

Area of specialization: Forensic medicine

It includes the studies and solution of medical and biological issues occurring in the course of investigation or prosecution of criminal or civil cases. The subject of forensic medicine is the theory and practice of forensic medical examination for the purposes of investigative and judicial practice, as well as the use of forensic medical expertise in solving healthcare problems within protection of public health.

14.03.06 Pharmacology, Clinical Pharmacology

Area of specialization: Pharmacology, clinical pharmacology

It includes the studies of drug interactions with living systems through chemical mechanisms by binding to regulatory molecules, activation or inhibition of the processes occurring in the body. The main areas of experimental pharmacology are the search and development of new effective drugs for the prevention and treatment of various diseases, for regulation of the functional state of organs and body systems, the study of pharmacodynamics, pharmacokinetics, drug metabolism and their interaction, the study of mechanisms of action and undesirable side effects, as well as experimental (preclinical) study of the potential medicines safety.

14.03.08 Aerospace and naval medicine

Area of specialization: Aerospace and naval medicine

It includes performing of applied systemic studies of medical physiological, hygienic and psychological, engineering and psychological, and ergonomic aspects of life support, efficiency and preservation reliability of occupational health and elongation of professional fitness of a person - operator in specific areas of his/her social activity and work in aviation, aerospace, maritime affairs and their inherent specific habitats (aviation and space flight, and the Earth aquatorium).

14.03.09 Clinical Immunology, Allergology

Area of specialization: Clinical Immunology, Allergy

It includes the studies of immunity (the body's defense system against biological aggression) and its disorders (allergies, immune deficiencies, autoimmune processes), as well as the creation of methods of diagnostics, prevention and treatment of diseases associated with abnormalities in the immune system.

14.03.11 Regenerative medicine, Sports Medicine, Physiotherapy, Balneology and Physiotherapy

Medicine, Physiotherapy, Balneology and Physiotherapy

Area of specialization: Regenerative medicine, sports medicine, physiotherapy, balneology and physiotherapy It is a complex speciality that studies the mechanisms of action and the development of methods of implementation of natural and artificial physical factors, physical exercises and other means of physical therapy, the factors of traditional therapy, improving the effectiveness of prevention, treatment and rehabilitation of healthy people, sportsmen, sick and disabled people in order to recover functional reserves of the human body or compensate lost functions and improve health and quality of life.