

# Research Institute of Hygiene, Occupational Pathology and Human Ecology

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# Research Institute of Hygiene, Occupational Pathology and Human Ecology

- **Founded in 1962**
- **Subordinate to the Federal Department of Medical Biological and Extreme Problems at the Ministry of Public Health of the Russian Federation “MedBioExtreme”**
- **Staff (144):**
  - **Research workers (68)**
  - **10 Doctors of Sciences and 28 PhDs, specializing in:**
    - **Toxicology**
    - **Pharmacology**
    - **Hygiene**
    - **Occupational medicine**
    - **Psychiatry**
    - **Biochemistry**
    - **Analytical chemistry**
  - **Engineers and technicians (52)**



# Institute Laboratories



- Laboratory of general toxicology and hygienic regulation
- Laboratory of special hygienic investigations;
- Laboratory of industrial and aquatic ecotoxicology
- Laboratory of physical and chemical methods of analysis
- Clinic of occupational pathology and long-term effects of chemicals
- Laboratory of automation of large-scale medical examinations
- Clinic of laboratory animals (vivarium)

# RIHOPHE Certifications:

- **By the Ministry of Public Health:**

- ❖ For development of regulatory and methodical documentation in hygiene and occupational hygiene, including development of methods for analysis of chemicals in environmental samples (Certificate no. CA 13.88 of 02.04.2004)

- **By “MedBioExtreme”:**

- ❖ For conducting sanitary epidemiological expertises, investigations, toxicological hygienic, and other assessments of special-purpose products and design materials (Certificate no. 003 of 29.01.2004)

- **By the Ministry of Industry, Science and Technologies:**

- ❖ For scientific research work (Certificate no. 4056 of 29.04.2002)

- **By the Russian Agency for Munitions:**

- ❖ For conducting scientific research in the field of storage and destruction of chemical weapons, operation with toxic chemicals and wastes of chemical weapons destruction technologies, as well as circulation of toxic chemicals with aims and quantities not prohibited by the Convention (Licence no. CWD-0022 of 17.01.2002)



# RIHOPHE: Areas of Focus - I

- **Occupational Pathology - Developing medical and sanitary foundations to ensure chemical safety for persons working with highly toxic chemicals Health and ecological monitoring**
- **Studying toxicity and hazards of chemicals and drugs in animal experiments**
- **Investigation and preclinical testing for therapeutic agents (including antidotes)**
- **Hygienic rating of chemicals environmental samples**
- **Devising methods for detecting chemicals and monitoring pollutants in the environment;**
- **Working out procedures for large-scale automated medical examinations of different contingents of working and general populations**
- **Medical support for practical application of automated diagnosing systems;**
- **Conducting medical biological and analytical testing of civil self-defense means, including tear and irritating agents;**
- **Conducting expert examinations under various conditions including cases of large-scale intoxications and emergencies;**

# RIHOPHE: Areas of Focus - II

- Hygienic and ecological certification of industrial facilities, laboratories at sanitary epidemiological stations and research institutes
- Sanitary and ecological assessment of the environmental impact of designed and operating industrial facilities, including development of “Environmental safety” sections in the pre-design and design documentation;
- Conducting research on storage and destruction of chemical weapons and operation with toxic chemicals (included in Lists 1-3 of the Convention on Prohibition of Chemical Weapons) and wastes of chemical weapons destruction technologies, as well as other toxic chemicals;
- Medical services for the population;
- Commercial chemical analyses of environmental and other objects;
- Conducting theoretical, applied, expert and other research works in the above-mentioned fields;
- Organization of pilot and small-scale industrial production of new medical equipment, chemical substances, reagents, and drugs;
- Post-graduate (clinical and other post-graduate courses) and higher-level (doctoral courses) education



# Current Commercial Work at RIHOPHE

- The Institute holds two Russian Patents:
  - *Method and instrumentation for registration of pupillary responses, RU Patent nos. 2123797, 2207040*
- A third Russian patent application is presently under consideration:
  - *Method for diagnosis of opiate drug intoxication, RU Patent Appl. no. 2002125594/14 (026995)*

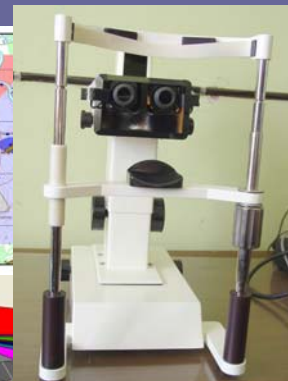
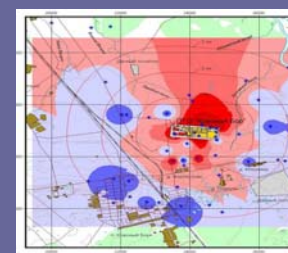


# Seeking Commercial Collaborators

- Pilot and serial industrial production of an automated binocular pupillometric unit for toxicology studies on new drugs (Submitted as Poster to Conference)
- Design, testing, and pilot production of a universal acoustic optical tunable filter analyzer for CW agents in environmental and biological objects

# RIHOPHE Posters & Presentations presented at the conference

- «Development of New Means for Protection of the Human Organism Against Toxic, Radiation, and Biopathogenic Effects on the Basis of the Stress Xenobiotherapy Concept»
- «Universal Acoustic Optical Tunable Filter I Analyzer for CW Agents in Environmental and Biological Objects»
- «On the Problem of Assessment of Consequences of Biological and Chemical Contamination of Aqueous Ecosystems: Criteria, Monitoring, and Preventing»
- «Technology of Adaptive Bioremediation of Soils Contaminated with Highly Toxic Chemicals and Express Assessment of its Efficiency»
- «Technology of Evidential Confirmation of the Exposure of An Organism to Xenobiotics by Fractional Analysis of Body Fluids by Means of Laser Correlation Spectroscopy and Capillary Electrophoresis»
- «Pupillometry as a Method for Toxicology Testing of New Drugs and Preclinical and Clinical Assessment of the Biological Activity of Pharmacological Preparations»



# Contact Information

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