



UNIVERSITÀ  
di VERONA

PHD School  
in NATURAL SCIENCES  
AND ENGINEERING



## Vth INTERNATIONAL ANNUAL SCIENTIFIC-PRACTICAL CONFERENCE

**«The role of methods of physical-chemical research methods in establishing alcohol intake, new narcotic and psychoactive substances in the system of interaction between expert laboratories of law enforcement agencies, chemical toxicological laboratories of medical organizations, and forensic chemical laboratories of state forensic medical institutions»**

**30-31 May 2019, Moscow**

**Organizers:** I.M. Sechenov First Moscow State Medical University (Sechenov University), Institute of Physical Chemistry and Electrochemistry after A.N. Frumkin of the Russian Academy of Sciences, the Association of Specialists of forensic chemical and chemical-toxicological analysis, and the University of Verona (Italy).

**Venue:** Moscow, Institute of Physical Chemistry and Electrochemistry after A.N. Frumkin of the Russian Academy of Sciences, the address: 119991, Moscow GSP-1, Leninsky Prospect, 31.

**Registration of participants:** from 9.00 am to 10.00 am in the hall in front of the assembly hall (2nd floor).

### Conference program (preliminary)

Time	Speaker	Position, place of work	Title of the report
10:00			Welcome address

<b>Buryak Alexey Konstantinovich</b> – director of the Institute of Physical Chemistry and Electrochemistry after A.N. Frumkin of the Russian Academy of Sciences			
<b>Kovalyov Andrey Valentinovich</b> – director of the FGBU “Russian Center for Forensic Medical Expertise” of the Ministry of Health of Russia, chief specialist in forensic medical examination of the Ministry of Health of the Russian Federation			
<b>Tarasov Vadim Vladimirovich</b> – director of the Institute of Translational Medicine and Biotechnology of the I.M. Sechenov First Moscow State Medical University (Sechenov University)			
<b>Franco Tagliaro</b> - Head of the Department of Forensic Medicine and Toxicology, Director of the PhD program on nano-sciences and advanced technologies of the University of Verona (Italy)			
<b>Appolonova Svetlana Alexandrovna</b> - Head of the Laboratory of Pharmacokinetics and Metabolomic Analysis of the Institute of Translational Medicine and Biotechnology of the I.M. Sechenov First Moscow State Medical University (Sechenov University)			
<b>Alexander Vedenin</b> – CEO Interlab			
10:40-11:00	Alexander Vedenin	CEO Interlab	Successes and prospects of the domestic analytical instrument making
11:00-11:20	Franco Tagliaro	Head of the Department of Forensic Medicine and Toxicology, Director of the PhD program on nano-sciences and advanced technologies of the University of Verona (Italy)	Experience of toxicology and forensic center of the University of Verona in the identification of psychoactive substances according to toxicological analysis data in the framework of the program UNODC Early Warning Advisory on NPS
11:20-11:40	Andrey Novikov  Artyom Gil	Chief psychiatrist-narcologist of the Department of Health of the Khanti-Mansy autonomous okrug – Yugra, Chief physician of the “Surgut psychiatric and neurological hospital”  Professor of the Higher School of Health Administration of the I.M.Sechenov First Moscow State Medical University (Sechenov University)	Identification and control of the distribution of new psychoactive substances as part of measures aimed at improvement of narcological and chemical-toxicological services in the Khanty-Mansi Autonomous Okrug - Yugra.
11:40-12:00	Natalya Krupina	“Bureau of forensic medicine expertise” of Moscow oblast. Department of forensic medicine of “MONIKI by M.F. Vladimirsky”, Association of experts of forensic medicine	About the recommended methods of identification and analysis of narcotic, medicinal substances and their metabolites in biological objects when conducting forensic chemical and chemical toxicological examination of objects of biological origin.
<b>12:00-12:40</b>	<b>Кофе-брейк</b>		
12:40-13:00	Alexey Smirnov	Head of the chemical-toxicological laboratory of the Reference Center for Monitoring use of psychoactive substances of the Moscow scientific and practical center for narcology of the Moscow Department of Health	Experience of the chemical-toxicological laboratory of the Moscow scientific and practical center for narcology in identification of new psychoactive substances
13:00-13:20	Vadim Shevirdin	Urals Federal University after Yeltsin B.N.	Features of the library of mass spectra and chromatographic retention indexes EKBDRUGS for the identification of narcotic drugs and psychotropic substances

13:20-13:40	Vladimir Unizhaev	General Directorate for Drug Control of the Ministry of Internal Affairs of Russian Federation	New psychoactive substances and countering their spread in the Russian Federation
13:40-14:00	Ruslan Yurchenko	ZAO «BelKhard Group», department of expert systems (AIPsIN), Minsk	New methods deconvolution in progressive technologies of AIPsIN
14:00-14:20	Igor Zenkevich	Professor, doctor of chemical studies, institute of chemistry «University of Saint-Petersburg», NIST	Comparative characteristics of various algorithms for calculating gas chromatographic retention indices
<b>14:20-15:20</b>	<b>Обед</b>		
15:20-15:40	Andrey Grygoriev	Doctor of chemical sciences, «Bureau of forensic expertise» of Moscow oblast	New compounds in the practice of chemical-toxicological studies 2018-2019. The role of retention parameters in determining the structure of metabolites / markers.
15:40-16:00	Igor Rodin	Professor, doctor of chemical sciences, Deputy dean on scientific and innovation work of the faculty of chemistry of the M.V.Lomonosov Moscow State Medical University	HPLS-MS/MS identification of biologically active substances
16:00-16:20	Elena Savelyeva	Head of the laboratory of analytical toxicology, doctor of chemical sciences, "Research institute of hygiene, professional pathology and human ecology" of the Federal medical biological agency of the Russian Federation	Chromato-mass-spectrometric technologies for detecting and identifying traces of terrorist poisons in biological samples
16:20-16:40		Reports of the InterAnalyt Shimadzu	
16:40-17:00	Dmitry Burmikin	Deputy Head of the Development Department of Bruker Daltonics	Review and comparison of ready solutions for toxicological screening TargetScreener and Toxytyper of Bruker
17:00-17:20	Ksenia Skrebkova	Head of chemical-toxicological laboratory of the "Narcological dispensary of the Kaliningrad region", Chief Specialist in Analytical and Forensic Toxicology of the North-West Federal District	The role of Standard Operating Procedures in organizing the activities of chemical toxicological laboratories
17:20-17:40		Report of Agilent	
17:40-18:00	Nikolay Shaborshin	Head of the Association of specialists of forensic-chemical and chemical-toxicological analysis	Summarizing the VII Round of the Multicenter comparative trials of MezhToxLab

<b>18:20-19:00</b>	<b>Meeting of the Association of Specialists of Forensic Chemical, Chemical and Toxicological Analysis</b>		
	<b>Buffet table</b>		
<b>Second day of the conference</b>			
10:00-10:20	Vladimir Voitov Andrey Grygoriev Natalia Krupina	«Bureau of forensic expertise» of Moscow oblast, Department of forensic medicine of the «MONIKI after M.F. Vladimirovsky», Moscow oblast	Determination of ethylglucuronide in blood and urine using liquid chromatography with a quadrupole time-of-flight MS / MS detector
10:00-10:40	Anna Bertaso	University of Verona (Italy)	Rapid analysis of lactate by using capillary electrophoresis as a new tool for estimating the time of death
10:40-11:00	Giacomo Musile	University of Verona (Italy)	A novel low-cost approach for the determination Carbohydrate-Deficient Transferrin (CDT) based on Fluorescence Resonance Energy Transfer (FRET).
11:00-11:20	Sergey Savchuk  Maria Musinova Elena Pipina Magomed Aigumov  Andrey Kulikovskiy Dagmara Bataeva	Russian center for forensic medical expertise, First Moscow State Medical University  Head of forensic-chemical bureau of Ryazan oblast Head of forensic-chemical bureau of Tomsk oblast Head of chemical-toxicological laboratory of psychiatric and narcological hospital of Noyabrsk  Institute of meat industry	Markers of formation of ethanol in biological objects
11:20-11:40	Azamat Tamerdashev	"Kuban State University"	Features of instrumentation when conducting research for chemical and toxicological expertise
11:40-12:00	Eduard Viryus	Leading Researcher, Laboratory of Functional Angioprotemics and Metabolomics, Research Institute of General Pathology and Pathophysiology of the Institute of General Pathology and Pathophysiology	Matrix effects in liquid chromatography-mass spectrometry with an orbital ion trap and ways to overcome them
12:00-12:20	Mikhail Ignashkin Nadezhda Vlaskova Anna Baranova	Head of the Department of Biomedical Research, Senior Expert of the Office of the Organization of Forensic Expertise of the Investigative Committee of the Russian Federation	Innovative approaches to the detection and removal of traces of biological origin on physical evidence
<b>12:20-12:40</b>	<b>Coffee break</b>		
12:40-13:00	Eugeny Nikitin	Institute of Criminalistics of the Center for Special Technology of the Federal Security Service of Russia, Moscow	Determination of chromatographic-mass-spectrometric characteristics of the metabolites of new psychoactive substances obtained using the in vitro method
13:00-13:20	Svetlana Frolova	Deputy Head of the Department of Biomedical Research, Directorate for the	Comprehensive study of material evidence on the example of solving the

	Alexey Mokrousov	Organization of Forensic Expertise of the Investigative Committee of the Russian Federation  Chief expert of the Directorate for the Organization of Forensic Expertise of the Investigative Committee of the Russian Federation	issues of situational examinations
13:20-13:40	Alexey Nadezhdin Daniil Kuznetsov	Journal "Narcologia", Department of Communications Technologies in Narcology, Moscow Research and Practical Centre for Narcology of the Department of Health, Moscow, Russia	Internet technologies in the identification of new psychoactive substances
13:40-13:00	Olga Perets  Raisa Krasnova Natalia Krupina	Department of pharmaceutical and toxicological chemistry after A.P.Arzamastsev of the I.M.Sechenov First Moscow State Medical University, Bureau of Forensic Medical Expertise, Department of Forensic Medicine of MONIKI after M.F.Vladimirsky, Moscow oblast	Determination of pregabalin in biological fluids by GC-MS method
13:40-14:00	Anatoly Kind	"Analit Products", Shimadzu	Features of sample preparation of nail sections and hair
<b>14:00-15:00</b>	<b>Lunch</b>		
15:00-15:20	Maria Gofenberg	Head of clinical diagnostic laboratory of the "Oblast narcological hospital", Yekaterinburg	Practical aspects of chemical-toxicological examination of new psychoactive compounds in the Ural region
15:20-15:40	Stepan Kulyomin	Leading specialist «TDA-Vostok»	Automation of sample preparation for chromatographic and mass spectrometric analysis
15:40-16:00		Reports of Agilent	
16:00-16:20	Julia Shin  Tatyana Orlova Natalia Krupinina	Department of pharmaceutical toxicological chemistry after A.P.Arzamastsev of the I.M.Sechenov First Moscow State Medical University (Sechenov University), Bureau of Forensic Medical Expertise of Moscow oblast, Department of forensic medicine of MONIKI, Moscow oblast.	Trimeprazine in the forensic chemical and chemical toxicological analysis of biological fluids
16:20-16:40	I. Podolsky	Specialist in the use of gas chromatography-mass spectrometric equipment of "Bruker LLC"	Adaptation of the TargetScreener software and hardware complex based on the high-resolution maXis impact mass spectrometer for doping control purposes
16:40-17:00	Evgeny Bezrukov	MS-Analitika	New methods of the Thermo Fisher Scientific for forensic expertise
17:40-17:20		Reports from manufacturers of analytical equipment	

## Conference closing, debriefing

We also invite you to take part in the additional professional advanced training program “Chromatographic and Spectral Methods of Chemical and Toxicological Analysis” with the issuance of a certificate of study (144 study hours).

Dates of advanced training: from April 29, 2019 to May 31, 2019 (the full-time part will be held from May 27 to May 31 at the Sechenov First Moscow State Medical University (Sechenov University), Institute of Physical Chemistry and Electrochemistry by A.N.Frumkina in the form of a workshop on the application of new methods of chemical-toxicological and forensic chemical analysis for the study of biological objects by methods of chromatography-mass spectrometry).

As part of further training, workshops will be organized by the heads of chemical toxicological laboratories. On-the-job training will be conducted on new sample preparation techniques. Practical skills of instrumental analysis are given in the amount necessary for the laboratory assistant to conduct routine examinations. Special attention will be paid to the role and contribution of non-laboratory (test strips), preliminary (ELISA) and confirmatory methods.

Within the framework of the advanced training cycle, the following will be organized: a school on the application of LC-MS / MS and LC-IT-TOF from InterAnalit company on the basis of the Chemical Faculty of M.V. Lomonosov Moscow State University and practical work on toxicological LC-MS / MS analyzers Toxyper Impact q-tof in the demo laboratory of the Bruker representative office.

You can take part in a practical seminar for free (without issuing a certificate).

APPLICATIONS FOR PARTICIPATION IN THE CONFERENCE, THESES, POSTERS, AND ALSO APPLICATIONS FOR THE UPGRADING OF QUALIFICATION SHALL BE SENT TO THE FOLLOWING ADDRESS:

conference-nii-farmacii@yandex.ru

Tel .: +7 (903) 740-93-90 (Sergey Savchuk)

+7 (925) 444-86-60 (Tatyana Salnikova)