

100 Years of Experience in Forensic Science Support to Justice

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I congratulate everyone on release of the 32nd edition of Research Paper Collection: *Theory and Practice of Forensic Science and Criminalistics*! Unfortunately, war continues and this edition, like the previous ones, was prepared by the Editorial Board under conditions of armed aggression against Ukraine. This issue is special, because precisely in November 2023, National Scientific Center «Hon. Prof. M. S. Bokarius Forensic Science Institute» will celebrate the institution 100th anniversary.

During the centuries-old history of conscientious service to the truth, institution employees have become participants in many epoch-making events in our country. For 100 years in a row, close-knit team of the Center has adequately responded to the challenges of the times. Every day, almost 400 dedicated and experienced professionals work hard with the sole goal of providing justice in Ukraine with independent, qualified and objective forensic science.

In 1923, in the system of the People's Commissariat of Justice of the UkSSR, offices of scientific and forensic examination were created in the cities of Kharkiv, Kyiv and Odessa. In November 1923, on the basis of the Department of Forensic Medicine of the Medical Institute, Kharkiv Office of Forensic Science began its activities, headed by Mykola Serhiyovych Bokarius, founder of forensic direction in national forensic medicine, outstanding scientist and teacher in the field of forensic science.

This article is translation of the original Ukrainian content, which source is available at the link: <https://khrife-journal.org/index.php/journal> (translated by Andriy Bublikov). The author acknowledges translation as corresponding to the original.

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Did anyone imagine then that many years later, thanks to fruitful work and achievements in the Ukrainian and international arena, the Kharkiv office would become a well-known forensic expert institution not only in Ukraine, but also in the whole world? By Decree of the President of Ukraine dated August 28, 2020 No. 366/2020 to Hon. Prof. M. S. Bokarius Kharkiv Research Institute of Forensic Examinations of the Ministry of Justice of Ukraine was granted the status of a National Scientific Center.

In times of Russian armed aggression against Ukrainian people, it is particularly difficult to work. However, we do everything possible and even impossible for development of scientific and practical activities of the Center in order to improve forensic science support to justice in Ukraine. Despite the obstacles, scientists of NSC «Hon. Prof. M. S. Bokarius FSI» are confidently stepping into the future, using the latest achievements in the field of forensic science. Thanks to active participation in various international scientific projects, symposia and conferences, employees of institution gain new experience, master advanced methods and techniques of forensic science, introduce innovative best practices of international scientific and expert community into domestic practice. For more than a year now, the Center has been a member of one of the most authoritative organizations of forensic science institutions in the world – European Network of Forensic Science Institutes (ENFSI).

The collection which pages you are flipping through has gained authority over its 22 years of existence and is one of the most famous professional publications that answers current questions of science and criminalistics. During this time, outstanding scientists and practitioners of not only our country published their

research papers in the *Theory and Practice of Forensic Science and Criminalistics* collection. We have the honor of regularly publishing best practices of foreign partners, professionals from all over the world (Poland, Lithuania, Estonia, Latvia, Armenia, Indonesia, Scotland, India, Greece, Israel, etc.).

We are proud that currently the *Theory and Practice of Forensic Science and Criminalistics* research paper collection: is indexed in well-known international online databases: *Academic Scientific Journals Indexing*, *Bielefeld Academic Search Engine (BASE)*, *CORE*, *Crossref*, *Directory of Open Access Journals (DOAJ)*, *Directory of Open Access Scholarly Resources (ROAD)*, *Directory of Research Journals Indexing (DRJI)*, *ERIH PLUS*, *Eurasian Scientific Journal Index (ESJI)*, *Europub*, *Index Copernicus International*, *MIAR*, *Polska Bibliografia Naukowa*, *RefSeek*, *ResearchBib*, *Ulrich's*, *WorldCat*, *Google Scholar*, as well as in the Register of Scientific Publications of Ukraine and on the website of the registrar of digital identifiers DOI. Electronic versions of the collection are posted on the Internet on the platforms of the Vernadsky National Library of Ukraine, libraries of forensic institutions of the Ministry of Justice of Ukraine, institutions of higher education of the Ministry of Internal Affairs of Ukraine, etc.

Let us review the content of the 32nd issue of *Theory and Practice of Forensic Science and Criminalistics*. Traditionally, articles are grouped into two main groups: research papers and case notes.

The section with research papers begins with the *Scientific activity in the field of forensic science is the methodology basis forensic researches under martial law* article by **Aleksandar Ivanović**, scientist and practitioner, Doctor of philosophy in the field of law, Professor (Republic of Montenegro), co-authored with **Ella**

Simakova-Yefremian, Deputy Director for Academic Affairs of NSC «Hon. Prof. M. S. Bokarius FSI», Doctor of Law, Professor, Honored Worker of Science and Technology of Ukraine, and **Yevhen Pivnov**, Postgraduate Student of NSC «Hon. Prof. M. S. Bokarius FSI» (both from Ukraine). The purpose of this research paper is to study the issues of forensic science methodology, methods and techniques of expert research in the conditions of martial law and global threats related to the crimes of Russian aggressor against Ukraine. The authors emphasize the need to improve scientific and methodological foundations of forensic expert activity, in particular regarding changes in national legislation to regulate the issues of involving foreign forensic experts and prove the feasibility of conducting scientific topics of a methodological nature in conditions of martial law or in conditions of post-war state reconstruction.

In the article by **Oleh Uhrovetskyi**, Doctor of Law, Professor (Ukraine), **Olga Catara-ga**, Director of Law Expertise Department of Ministry of Justice of Republic of Moldova, Doctor of Philosophy in Law (Republic of Moldova) and **Daria Davydenko**, PhD in Economics Senior Researcher (Ukraine), *Introduction directions of foreign innovative practice in the staffing of forensic science institutions of Ukraine* analyzed Western innovations in personnel policy (planning, search, selection, hiring and adaptation of employees: psychophysiological, socio-psychological, professional, organizational components) and compared them with trends in the work of HR departments.

Publication by **Iryna Petrova**, Doctor of Laws, Professor, co-authored with **Ihor Bohdaniuk**, PhD in Law, Senior Researcher (both from Ukraine), *Problematic Aspects of Appointing and Conducting a Forensic fire investigation* is devoted to the need to update to the modern level of development

of science and technology and to unify methodical recommendations and expert methods for conducting expert studies of all possible objects at each of the stages of fire investigation in order to prevent erroneous conclusions of experts. The authors outlined problematic aspects of individual stages in investigation of fire circumstances; formulated recommendations regarding requirements for the inspection of the scene of the incident and the circle of expert witness who should participate in this inspection, regarding appointment specifics of forensic fire investigations and further evaluation of the results of conducted research; drew attention to errors that a forensic expert can make during fire investigation and the reasons for such errors.

In research paper by **Ivan Yatsenko**, Doctor of Veterinary Medicine, Professor (Ukraine), *Internal expert conviction: forensic veterinary aspect*, mechanism for minimizing influence of subjectivism on the activity of forensic expert and on drawing up an expert's conclusion is proposed and formation essence of expert's internal conviction is revealed (state of his consciousness and feelings that is result of mental subjective activity while conducting expert research and evaluating the signs and properties of tangible and materialized objects with the aim of clarifying factual data and circumstances of the case for which specific examination is being conducted). Attention is focused on the fact that it is expedient to distinguish the epistemological, psychological, ethical, moral and legal components of the internal conviction of forensic expert, etc.

Case notes section begins with an article by **Daria Bulgakova**, Doctor of Philosophy in International Law (Sweden). The author considered in detail the current topic of prohibited practice of using artificial intelligence through the prism of

recently adopted European Union law on artificial intelligence, its safe use in many life fields.

The article by **Daryna Kondratenko**, candidate of legal sciences (Ukraine), *Legal regulation of innovation and investment activities in agrarian sector of Ukrainian economy* contains research on normative and legal regulation of attracting investments to agricultural sector of Ukraine. The author outlined ways to improve the legislative regulation of investment in order to increase attractiveness of investment climate in our country, identified problematic aspects of current laws and subordinate legal acts that prevent optimizing the process of investing in agrarian sector of the national economy, and considered international legal framework on this issue.

Daria Barbash, student at the third educational and scientific level of training (Ukraine), investigated historical phenomenon development of stereotyping and its influence on the judge during the consideration of criminal cases. The researcher analyzed significance of stereotype phenomenon for society in general and an individual in particular, its importance for the judge's internal perception of defendant and case circumstances, as well as evaluation of evidence in criminal proceedings. Attention is focused on the fact that stereotyping during the administration of justice by a judge in criminal cases negatively affects impartiality of judge and can provoke discrimination of the parties to criminal proceedings that is unacceptable.

The article by **Sofia Ziubrii** (Ukraine) is about specifics and prospects of using X-chromosomal tandem repeats in forensic DNA testing. Scientific and methodical literature data on the frequency of mutations, prevalence of alleles in populations and the prospects of creating

a general database of X-STR-repeats are systematized, as well as the criteria for the search and analysis of STR-loci are highlighted. The scientist characterized commercial sets of X-STR repeats (*Argus X-8 PCR Amplification Kit* by Biotype AG and *Investigator Argus X-12 QS Kit* (Germany), *X19 X-STRs amplification kit* by AGCU ScienTech Inc. and *19X Direct ID system* (China)) and directions of their use. The Researcher came to the conclusion that X-STR repeats are a full-fledged tool for conducting molecular genetic examinations, which can be offered for use in expert research.

Olha Brendel, Postgraduate Student of NSC «Hon. Prof. M. S. Bokarius FSI» (Ukraine), considered possibility of a diagnostic research on the speech of a person who is in a state of alcohol intoxication. The author drew attention to specifics of speech diagnosis of a person in a state of alcoholic intoxication, moderate and severe intoxication, situational moments related to the speaker, and also investigated the factors, which variability affects characteristics of a person's voice in different states of alcohol intoxication.

On the last pages of this issue is the *Scientific News* section The European project: *Support of Ukrainian forensic experts in documenting war crimes committed by Russian Federation (ForUkraine)*, for which implementation NSC «Hon. Prof. M. S. Bokarius FSI» received a grant with assistance of the Ministry of Foreign Affairs of the Republic of Latvia, aims to provide practical support to forensic experts of our Center in documenting war crimes, committed by Russian aggressor, as well as in learning new methods and exchanging experience during working visits to forensic science institutions in Latvia and Estonia.

The following news item is about the All-Ukrainian scientific and practical conference: *Forensic expert activity in the*

conditions of post-war reconstruction of Ukraine and in the context of European integration, organized by Odessa Scientific Research Institute of Forensic Sciences of Ministry of Justice of Ukraine. The participants of the event discussed urgent issues regarding the contribution of expert institutions to the post-war reconstruction of Ukraine with support of European States.

Development of partnership relations with foreign institutions, in particular the Slovak Republic, Spain and United States of America, the constant exchange of experience in the field of criminalistics and forensic science, working meetings of representatives of forensic science institutions of Ukraine with potential foreign partners are a significant contribution to development of science and forensic science support to justice not only in Ukraine, but in other states.

Publication Editorial Board is grateful to the authors of research papers who contributed to this issue creation. All ethical

and formal requirements for submission of scientific articles, determined by the standards of the quality of scientific works and the rules of their presentation, generally accepted in the world scientific society, in particular, the recommendations of *Elsevier*, *Committee on Publication Ethics (COPE)*, Ukrainian scientist Code of Ethics, as well as working experience of foreign and Ukrainian professional communities, scientific organizations, editorial boards of publications. We appreciate the contribution of each scientist to development of *Theory and Practice of Forensic Science and Criminalistics* research paper collection by providing legal support for forensic activity, we strengthen the rule of law foundation in modern and future Ukraine.

We invite scientists and practitioners of Ukraine and foreign expert institutions to coordinated and fruitful cooperation! Let us develop Ukrainian science together! Let us win together!

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