

V. N. Karazin Kharkiv National University



School of Medicine



Department of General and Clinical Pathology

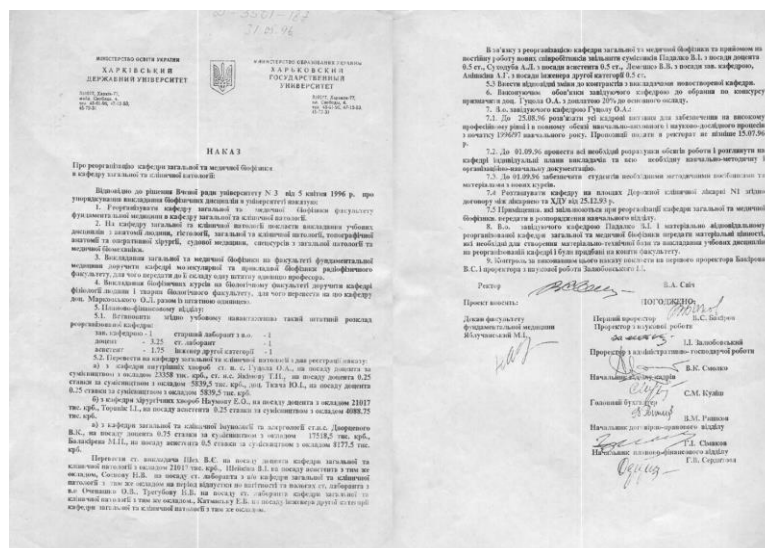


GENERAL INFORMATION

The Department of General and Clinical Pathology sets a special place at the bridge between basic science and clinical practice. The interactions between these fields provide an incredible opportunity to translate new knowledge into improved health outcomes for patients and populations. The Department is the one of its kind across Ukraine. The department's collective level of knowledge and skill covers the full spectrum from the principles and practice of teaching, implementing innovative approach, to research and clinical practice. The Department of General and Clinical Pathology is the fundamental and clinical core of the School of Medicine in education at MD program 7.12010001 "Medicine case".

DEPARTMENT'S HISTORY

Department of General and Clinical Pathology was established in accordance with the decision of the Academic Board of the Kharkiv State University №3 on April 5, 1996 by reorganization of the Department of General and Clinical Biophysics. At that time, the key disciplines of the Department of General and Clinical Pathology were Human Anatomy, Histology, General and Clinic Pathology, Topographic Anatomy and Operative Surgery, Forensic Medicine, special courses of General Pathology and Medical Biomechanics.





Associate professor Dr. Alexey Gutsol, MD, PhD has been chosen as the first Head of the Department and he secured that position until 2002.

From the beginning of the department's history the Museum of Human Anatomy and Pathological Anatomy was found by staff and students. The Museum's collection included archive of slides with histological and pathological specimens. Also from other hand, the research study of particularities of hormonal receptor status of breast cancer began then.

The other scientific topic of the Department was study and comparative analysis of characteristics of regular skulls and skulls with acquired skull deformities in ancient people of Khazar Khaganate who lived on the territory of modern Ukraine. Professors and students of the Department collaborated on that project. Students also had a great opportunity to discuss findings during Student's Scientific Circle, Human Anatomy chapter.





During the existence of the Department, many well-known scientists and experts have contributed to the development of scientific research and improving the educational process.

Full professor Dr. Gennady Toporov, professor Emeritus, MD, PhD was the founder of Topographical Anatomy and Operative Surgery course at the Department. He was the prominent scientist, author of numerous scientific works in human anatomy and topographic anatomy, and great educator.

Another prominent school member was full professor, Dr. Tamara Yakimova, Professor Emeritus, MD, PhD. She conducted practical lessons and lectures on Pathological Anatomy. Without doubts, Dr. Yakimova rose a great interest to Pathology in students.



Dr. Yakimova is posing with students



Associate professor, Dr. Ella Naumova, MD, PhD was the Head of Human Anatomy course. She made a significant contribution to the development of Anatomy teaching strategy and promoting student's welfare.

In 2001-2002, the Department provided graduated responsibility to final year medical students in specialty General Medicine - Laboratory Diagnostic (7.110103).

Since 2002 full professor, Dr. Olena Protsenko, MD, PhD is the Head of the Department. She definitely did a great impact on development of the Department. Under her wise guidance, the Department of General and Clinical Pathology became prosperous core and clinical foundation at the School of Medicine.





Dr. Protsenko is also a scientific supervisor. Her PhD students successfully defended theses. The topic of research study for those works was a morphological investigation:

- ⇒ Dr. Olena Polyakova «Pathological anatomy of the pancreas of fetuses and neonates from anemic mothers»;
- ⇒ Remneva Natalia A. «Pathological anatomy of the thymus of women with generalized myasthenia gravis».

The School of the Department is actively collaborated with the Institute of General and Emergency Surgery Academy of Medicine of Ukraine on the project “The study of heterogeneity of metabolic and immune disorders, and correction before and after thymectomy in patients with myasthenia”.

For example, also since 2003, our Department actively collaborated with school members of the Department of Anatomy of the Witten/Herdecke University, School of Dentistry, Witten, Germany, to study the morphological particularities of the skulls of people who lived on the territory of the Kharkiv’s region during the time of the Khazar Khaganate.

As the part of the project a comparative analysis of regular skulls and skulls with acquired deformities in Ukraine was done. Dr. Fedorischeva, PhD student of Dr Yabluchansky combined the results of the study and suggestions of her consultant from Witten/Herdecke University, Dr. Wolfgang Arnold in her PhD work “Comparative analysis of regular skulls with the skulls with acquired deformities from archaeological excavations in Upper Saltov, Lower Don, Chersonese, Tepe-Kerman”, which she successfully defended in 2008.

Furthermore, effective cooperation between the two universities has led to the creation of a multimedia atlas of Histology in three languages (2007).



June 2004: Dean of School Medicine Dr. Yabluchansky presents certificates to invited by the Department professors Dr. Stephen Carmichael (Mayo Clinic) and Dr. Wolfgang Arnold (Witten/Herdecke University)



The School of the department, 2004



Until 2012 the key Department disciplines were: Human Anatomy (Head of the course Dr. Sherstuk, MD, PhD); Histology, Cytology and Embryology (Head of the course Dr. Padalko, PhD); Pathological Anatomy (Head of the course Dr. Protsenko, MD, PhD); Pathological Physiology (Head of the course Dr. Remneva, MD); Operative Surgery and Topographic Anatomy (Chief Dr. Kovalev G., MD); Forensic Medicine (Chief Dr. Remneva, MD); Sectional Course (Chief Dr. Protsenko, MD, PhD).



Since 2003, all lectures of the Department switches on multimedia format, using MS PowerPoint. Thus, the Department has its own developed methodology, educational materials for all department's disciplines.



Dr. Olena Shapoval conducts practical lesson in Histology



The Head of the Department Dr. Protsenko and Dr. Kovalev are posing with students





Students involved in scientific projects of the Department were awarded the first places at the National Ukrainian Olympiads and competitions of student scientific endeavors.



The Department regularly organizes scientific conferences and seminars where students and School have equal opportunity to present the results of research studies.



Student conference, 2012



Every April the International Student Conference is held at the School of Medicine. Members of Student's Scientific Society (Chapter Pathology) are active and regular its participants.





The Department is also providing the continuous medical training for domestic and international professionals in Pathological Anatomy.

*Hic locus est,
ubi mors gaudet succurrere
vitae*



The School of the department, 2012

The School and staff of the Department always try to minimize the student's live stress, promoting good relationships and healthy educational environment. Field trips, excursions, picnics etc. are usual things, which is enjoyable for undergraduate and graduate students and for School.



DEPARTMENT'S LOGISTIC

To encourage medical students to develop cut edge knowledge the Department provides state-of-art equipment according to international educational experience.

To merge medical student into the medicine knowledge all lectures are held in three specious lecture halls equipped with multimedia systems connected to the University's internal network and the Internet.

Furthermore, during practical lessons students use eight department's classrooms equipped with multimedia systems with easy access to the University's internal network and the Internet, essential models, concrete materials, etc.



In close cooperation with our students, our professors created the Museum of Human Anatomy and Pathology. Collections of the Museum are widely used in promoting courses Anatomical Pathology and Pathological Physiology. All members of our Department and students are constantly updating and enhancing collections of the Museum. Now, many members of our school are working on creating the digital Pathological Atlas of Micropathology and Macropathology.



Continuing very positive experience of using digital copies of learning materials our professors create and introduce new electronic versions of review courses, including electronic demonstrational models for practical lessons.

The Department provides to students unique opportunity to develop valuable skills in tissue processing, tissue cutting, tissue staining, to study fresh, frozen, or paraffin-processed tissues and analyze sections using various histological stains, and discrete cells within smear specimen. To help students to practice these skills the Department give a full access under supervision to tissue processor, embedding center, microtomes, cryostat, vibratome, laser capture microdissection, optical microscope (with LCD screen, camera and morphometric software), etc.

Conducting training courses in disciplines of the Department is accompanied by the use in the educational process and application of multimedia equipment, anatomical models, pathological preparations, microscopes, digital cameras and other equipment.

The main educational space at the Department is dissecting room with learning room at Pathology Department, the V. T. Zaitsev Institute of General and Emergency Surgery National Academy of Medicine of Ukraine where practical lessons in Anatomical Pathology, Pathological Physiology and Sectional Course take place.



HEAD OF THE DEPARTMENT

Dr. Olena Protsenko, MD, PhD is currently the professor and the Head of the Department of General and Clinical Pathology. She has attained national and international recognition as an expert in Anatomical Pathology.

Dr. Protsenko studied Medicine/Pediatrics at Kharkiv Medical Institute (now Kharkiv National Medical University) and successfully completed the program. Simultaneously after graduation, she went on to specialize in Anatomical Pathology at Kharkiv Medical Institute and in 1984 obtained her unrestricted clinical licence as a pathologist, which is presently maintained.



In 1984, she has been promoted to Head of Pathology Department at Kharkiv Hospital No.1. In 1987, Dr. Protsenko continued her training secured the clinical fellow position at Kharkiv Medical Institute. And later she was recruited to run the Department of Pathology at the Kharkiv Institute of General and Emergency Surgery, serving as pediatric pathologist. In 1994, Dr. Protsenko began her academic career by joining as associate professor to Anatomical Pathologist Department at Medical



Institute of Sumy State University, where she continued to deliver distinguished service as pathologist and consultant at Sumy Regional Pathology Bureau. In 1992, she successfully defended her PhD thesis 'Comparative Morphologic Study of Atherosclerosis in Kharkiv's Men for 20 years'. In 1998, Dr. Protsenko was awarded as Associate Professor.

In 1995, Dr. Protsenko was assigned the first clinical qualified category by the Resolution of the Sumy Regional Attestation Committee and in 1999 Dr. Protsenko was honored by receiving superior clinical qualified category approved by the Central Attestation Committee of the Ministry of Health of Ukraine.

Serving in the practical and academic pathologist capacity Dr. Protsenko continues her professional development by frequently taking continuous education courses for physicians and clinical educators.

In 2002 Dr. Protsenko became the Head of the Department of General and Clinical Pathology of the School of Medicine at V. N. Karazin Kharkiv National University. At that time the main disciplines conducted by school of the department were Human Anatomy; Histology, Cytology and Embryology; Anatomic Pathology; Pathological Physiology; Forensic Medicine; Operative Surgery and Topographic Anatomy; Autopsy course. Ultimately, Dr. Protsenko continued to practice pathology. For 5 years (2002-2007) she had been serving as pathologist at Kharkiv Regional Clinical Oncologic Health Center. Then in 2007, she worked as pathologist in Pathology Department at the V. T. Zaitsev Institute of General and Emergency Surgery National Academy of Medicine of Ukraine. And in 2011 she became a Head of Pathomorphology and Experimental Surgery Laboratory at Pathology Department of the V. T. Zaitsev Institute of General and Emergency Surgery National Academy of Medicine of Ukraine. Moreover, since January 9, 2014 she has been working as pathologist at Pathology Department at the V. T. Zaitsev Institute of General and Emergency Surgery National Academy of Medicine of Ukraine.

In 2013, Dr. Protsenko accomplished next doctoral research study 'Anatomical Pathology of hepatic and biliary system of fetuses and newborns form mothers who had complicated pregnancy' and she successfully defended her thesis for the

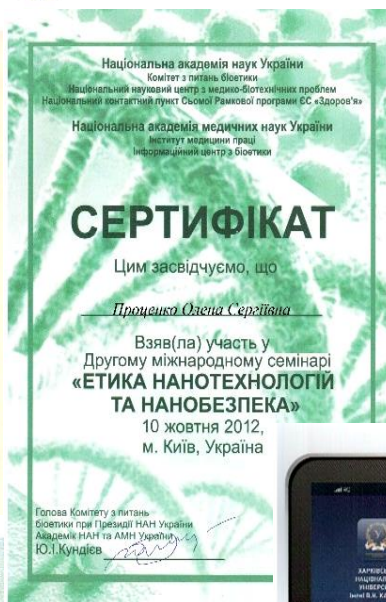


academical degree of Doctor of Medicine. In present time she is considering to be awarding the tenured professorships.

Dr. Protsenko has excelled in promoting the academic mission and her experience and wisdom are highly valued within our academic and student's community. She makes great contributions in education of future doctors by delivering numerous lectures on the general principles of pathology and clinical Pathology for Ukrainian and English speaking students; practical lessons in Anatomical Pathology and Autopsy courses. Tightly collaborating with school and students Dr. Protsenko performs autopsy with analysis of morphological particularities of tissues and organs in different disease. Preliminarily students familiarize themselves with theoretical part. Medical students always enthusiastically participate in discussion of clinical cases. Medical students of 6 years of education perform autopsy under supervision, what allows studying aspects of etiology and pathogenesis, clinical and laboratory diagnostics, and morphological appearance of different diseases.

Over the course of her career, Dr. Protsenko has had national impact in pathology education through her contributions to key textbooks in the field, 82 educational methodological recommendations, and 69 articles peer-reviewed articles for scientific magazines. The most prominent her published works are recommended by the Ministry of Education and Science of Ukraine (textbook for medical students 'General Pathomorphology/Protsenko OS, Remneva NO, Sherstyuk SO etc. – V. N. Karazin Kharkiv National University. – Kharkiv: KhNU, 2013. – 194 p.) , monograph (Anatomical Pathology of non-tumor changes in thymus in patients with generalized myasthenia/Protsenko OS, Remneva N.O. – Kh.: V. N. Karazin KhNU, 2010. – 148 p.). Moreover, Dr. Protsenko holds four patents.

Dr. Protsenko is an active participant and host of clinical and scientific conferences, international workshops and CME, Congresses of Society of Pathologists of Ukraine.





Under her exceptional supervision PhD candidates defended their theses: Dr. Olena Polyakova (thesis 'Anatomical pathology of pancreas of fetuses and newborns from mothers with anemia', 2006) and Dr. Natalya Remneva (thesis 'Anatomical Pathology of hyperplasic process in thymuses, 2008). She was nominated numerous times by prestigious University Director's awards for dedicated clinical and academic work for her great personal input in professional education of medical students.





Dr. Protsenko has an interest and expertise in morphology of autoimmune diseases and tumors of thymus in patients with myasthenia.

DEPARTMENT'S STAFF

Members of our school: 1 Doctorate in Medicine, full professor; 14 PhD, associate professors; 18 assistant and 7 senior department assistant. Our school consists of 49% of full time co-workers, and 51% of part-time co-workers.

Members of our school have great teaching experience. The average teaching on the University level experience of the school is 7 years.

In order to continue to deliver the high quality education our school takes annually update courses, courses of specialization, pre-certification cycles, courses for professional re-certification, etc. Equally important for our school is taking courses of teaching at the University Level and courses of implication of innovative internet-technologies and on-line educational options. Professors of our department learn all essential topics in the E-Learning Centre at V. N. Karazin Kharkiv National University 'Technology of Distance Education in University'. Dr. Olena Shapoval, MD, PhD, associate professor, developed distance education course in Histology, Cytology and Embryology. Young members of our school take courses in teaching and psychology at the School of Teaching Art of the University Centre of Postgraduate Education annually.

DEPARTMENT'S EDUCATIONAL WORK

To prepare medical students for a future career as a clinician or clinician-scientist our school provides in-depth knowledge in 5 disciplines in English and Ukrainian. The total volume of in-class education is 24945 academic hours, 350 of which are lectures and 19900 are labs.

These academic hours are shared across medical student's classes from first to 5th year. For medical students of 1st and 2nd years of education the Department provides course of Histology, Cytology and Embryology. Medical students of 3rd year have a great opportunity to learn Anatomical Pathology and Pathologic Physiology.



Furthermore, students of 4th year study Forensic Medicine with the School of the department and students of 5th year- "The sectional course".



Mention worthy, Histology, Cytology and Embryology, Anatomical Pathology, and Pathologic Physiology are fundamental disciplines in medical education and are bases for first step of licensing exam – KROK 1.

The Department delivers medical education in order to standardized curriculums, approved by the Ministry of Health of Ukraine and Ministry of Education and Science of Ukraine. The teaching all courses are performing also according to



recommendations and guidelines of the Bologna Process, following to ECTS requirements.

In addition, any student can easily get access to department's web portal to check for schedule, calendar, reviews, resources for self-education, lecture notes, educational videos, etc.

To make student's life easy our school uses multimedia technology adopting all possibilities of MS PowerPoint.

Under productive supervision of our Head of the Department, Dr. Olena Protsenko the School published textbook in Pathmorphology, which is recommended by the Ministry of Education and Science of Ukraine as a textbook for university students: Protsenko O.S., Remneva N.O., Sherstyuk C.O., Pleten O.M., Sidorenko R.V. General Pathomorphology. Textbook. – Kh.:KhNU, 2011. – 196 p.

Under effective management of the Head of Course of Histology, associate professor Dr. Volodymir Padalko the gallery of wall charts has been made. The gallery is devoted to prominent histologists and anatomists and their contributions into progressing of medicine and consists of 120 wall charts in Ukrainian and English languages. Even more, following up the great student's feedback after first demonstration of the gallery our school made a website 'Eponyms in Histology: Historical Facts and Imaging Appearances' (www.histology-kharkiv.esy.es), which is devoted to great scientists, whose names are used in scientific nomenclature.

In the same time, our school continuously develops and tests the new methods of delivery in teaching like on-line student's consultations, educational topics discussions, distance/on-line preparation to licensing exam KROK-1, etc. The latest technological improvement was introducing the e-learning system, which represents blended learning. On platform Moodle, on-line course in Histology, Cytology and Embryology was developed for medical students of 1st and 2nd year. In addition, the course is also used for preparation to licensing exam KROK-1.

On-line courses in Anatomical Pathology, Pathological physiology, Forensic Medicine and Section Course are in the progress. We believe the implementation these programs will allow to increase the effectiveness of medical education.



During learning students have a great opportunity to develop competence in the clinical and laboratory techniques, like performing an autopsy, development of the appropriate analytical skills, filing documentation, improving in-depth knowledge of ethical issues, practice clinical decision making.

Fostering medical students' commitment to life-long learning and continuing self-education the Department provides the best environment for preparation to licensing exam – KROK-1. Our school is updating knowledge control, multichoice question bank in every disciplines to practice in order to preparation to modular test control. During practicing, students have an opportunity to discuss blank of tests using the School of Medicine software/portal, computer classes and multimedia, on-line learning, on-line and in-class consultation with professor.



Dr. Natalia Remneva, MD, PhD is posing with students



The Museum of Pathomorphology is maintained the collections, added to them when feasible, and made them available and useful for the study by the Department. The Department seeks to continue in the tradition of promoting the collection for the purposes of medical education in all forms whenever possible, as well as expand its scope to provide educational resources to medical students.

Museum collections includes Cell Pathology, Inflammation, Circulatory Disorders, Tumors, Infectious diseases, Cardiac and Vascular Pathology, Lung Pathology, GI Pathology, Kidney and Urinary Tract Pathology, Genetic and Developmental Pathology. The Department of Anatomical Pathology of Kharkiv Medical Academy of Postgraduate Education also contributed in the process of growing the collections by giving some specimens.





The Museum has a unique collection of infectious diseases specimens, particularly typhoid and diphtheria. The biggest collection in the museum is congenital abnormality specimens' collection. Moreover, the exclusive collection in the museum is cardiac and vascular collection consisted out of 120 specimens and included even heart with prosthetic valves. More than 150 specimens form the collection of oncomorphology, which includes uterine tumors of gigantic size and ovarian cancer. Along the learning, the School also trains students for participation in All-Ukrainian academic competitions, contests.



Diplomas of students prize-winners of the contest in Pathomorphology, 2015

DEPARTMENT'S DISCIPLINES

The Department of General and Clinical Pathology provides education for medical student in English and Ukrainian languages. We deliver 5 disciplines:

- ⇒ **Histology, Cytology and Embryology.** This course is delivered to medical students of 1st and 2nd years. Head of the course is Dr. Volodymyr Padalko, Ph.D., associate professor. Professors (Ukrainian language of education): Dr. Olena Shapoval, MD, PhD, associate professor; Dr. Viktoriya Aidarova, MD, assistant; Dr. Olga Pavlova, MD, assistant. Professors (English language of education): Dr. Lubov Chumak, MD, PhD, associate professor; Dr. Ata Mohamed, MD, assistant; Dr. Irina Vishnevskaya, MD, assistant; Ms. Natalya Komaromi, assistant.
- ⇒ **Pathological Anatomy.** This course is delivered to medical students of 3rd year. Head of the course Dr. Olena Protsenko, MD, PhD, full professor. Professors (Ukrainian language of education): Dr. Volodymyr Omelchenko, MD, PhD, associate



professor; Dr. Alla Gritsay, MD, assistant; Dr. Vitaly Sakal, MD, assistant; Dr. Yevgeniy Titov, MD, assistant. Professors (English language of education): Dr. Alina Yakimenko, MD, assistant, Dr. Andriy Gaidabrus, MD, assistant, Dr. Oleksandr Kudryavtsev, MD, assistant.

- ⇒ **Pathological Physiology.** This course is delivered to medical students of 3rd year. Head of the course Dr. Natalya Remneva, MD, PhD, associate professor. Professors (Ukrainian language of education): Dr. Tatyana Kozlova, MD, PhD, assistant; Dr. Vladislava Bobrova, MD, assistant; Dr. Vasily Kremen, MD, assistant. Professors (English language of education): Dr. Olga Zhemela, MD, PhD, assistant; Dr. Evgenia Amelchenkova, MD, assistant; Dr. Lyudmila Kirilyuk, MD, assistant, Dr. Olexandr Budionny, MD, assistant; Dr. Olga Viglazova, MD, assistant.
- ⇒ **Forensic Medicine, Medical Law.** This course is delivered to medical students of 4th year. Head of the course Dr. Vyacheslav Sokol, MD, PhD, associate professor. Professors (Ukrainian language of education): Dr Volodymir Khizhnyak, MD, PhD, associate professor; Dr. Alla Linnik, MD, assistant. Professors (English language of education): Dr. Mykola Gubin, MD, PhD, Associate Professor; Dr. Petro Kaplunovsky, MD, PhD, Associate Professor.
- ⇒ **Sectional Course.** This course is delivered to medical students of 5th year. Head of the course Dr. Olena Protsenko, MD, PhD, full professor. Professors (Ukrainian language of education): Dr. Olena Protsenko, MD, PhD, full professor. Professors (English language of education): Dr. Darya Kulikova, MD, assistant.

THE METHODOICAL WORK OF THE DEPARTMENT

The Department holds its own recommendations to all delivering courses and they are frequently updated. Thus all courses have developed set of program, schedule, student's skills and knowledge evaluation criteria, methodical recommendations for practical lessons and student's self-education, guidelines for students regarding learning according to Bologna Process, bases of test and situational tasks for the current and final module control of knowledge and skills of students, checking



questions and lists of recommended reading, texts of lectures and multimedia presentations, etc.



The Department constantly publishes course reviews and textbooks to enhance the knowledge level and to make easier student's access to learning materials in all department's courses. Furthermore, results of our research are included into learning materials.

The results of our curriculum development are publication of one textbook with approval from the Ministry of Education and Science of Ukraine, 5 monographs, 68 textbooks, 57 review courses, including 26 in English language.



During last academic year, our school developed 38 course materials, 18 of them are in Russian language and 20 – in English language. The School got particular attention to developing student's book in Human Anatomy and Pathomorphology. In addition, course materials for students in English language were prepared such as Album (student's book in Human Anatomy course for module 1) and the set of course material/Album (student's book in Histology course for module 3). Moreover, our school accomplished developing of course materials in General and Clinical Pathomorphology and Pathological Physiology in Ukrainian and English language.

Educational materials for Histology, Cytology and Embryology course and student's book have been reviewed and supplemented with new information. New set of flash-cards in General Histology course for module 2 is developed.

All our educational course materials are certified and recommended for adopting in teaching process by Educational and Methodological Committee of University.

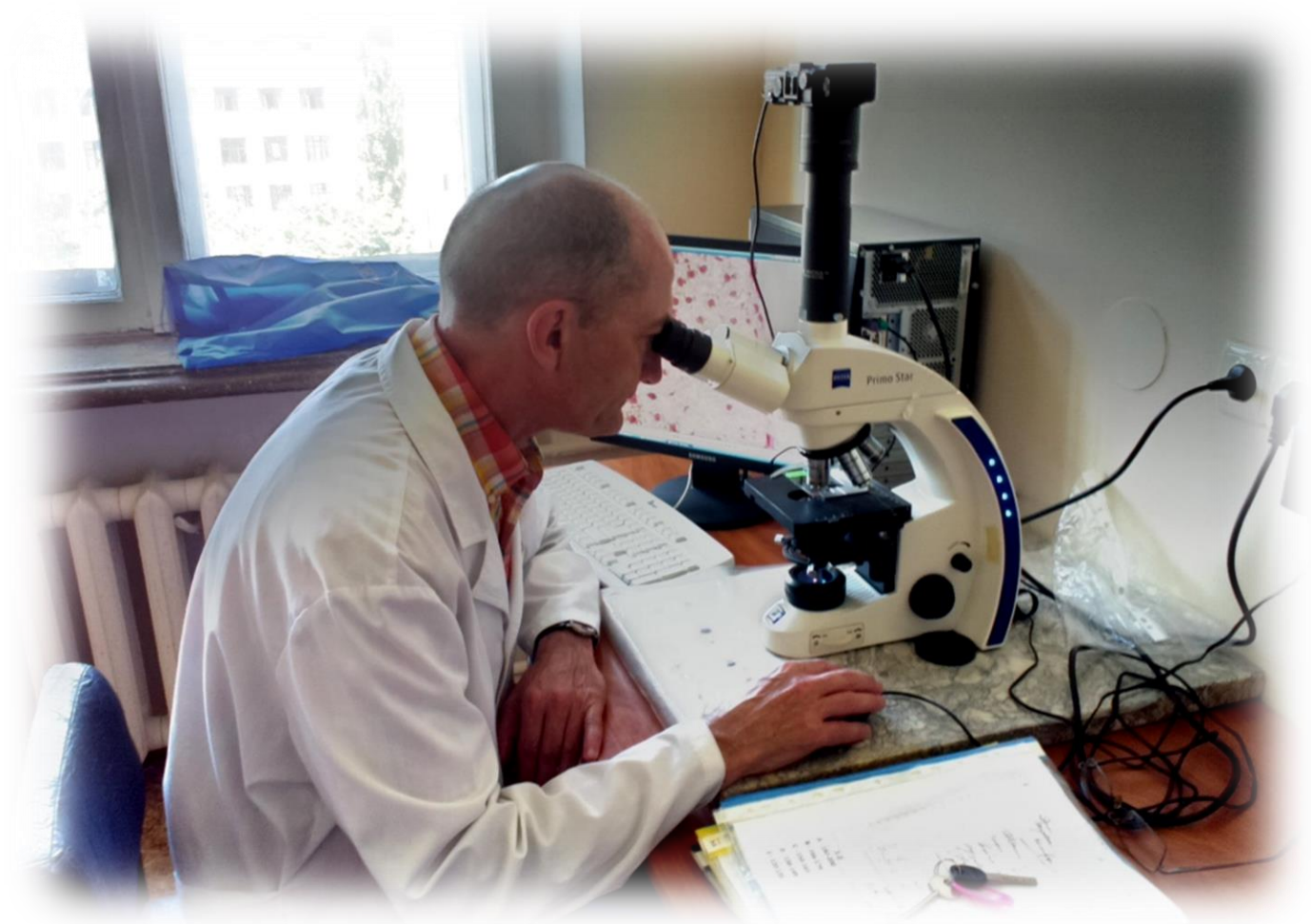
Our school develops and widely uses in teaching digital copies of course materials, including digital visuals for practical lessons.

The website of our department is regularly updated.

Our school continuously updates knowledge by sharing new information during seminars and curriculum development meetings. Our Head of the Department plays the main role in in scientific and methodological conferences and seminars, including Ukrainian. In addition, the Head organizes work on improving the methodological quality of teaching of disciplines.

DEPARTMENT'S SCIENTIFIC WORK

As an academic department, the Department of General and Clinical Pathology has a major emphasis on wide spectrum of research aimed at understanding the causes and mechanisms of human disease. The research is an integral part of its activities. School members involved in a broad spectrum of research are internationally recognized experts.



Dr. Volodymir Padalko screens slides

Conducting research at the basic and clinical level are in the context of research programs including in coordination plan of prioritized research areas approved by the Ministry of Health of Ukraine:

- ⇒ Pathology of (development) of organ systems in fetuses and newborns from mothers with complicated pregnancy;
- ⇒ Pathological particularities of fetus development caused by maternal conditions during pregnancy;
- ⇒ Heterogeneity of metabolic and immune disorders and its management before and after thymectomy in myasthenia gravis;



⇒ New technology in complex approach of diabetes mellitus management.

Our scientists investigate the following areas:

- ⇒ Pathological particularities of hepatobiliary system and pancreas of fetuses and newborns from mothers with iron-deficient anemia, eclampsia, and diabetes mellitus;
- ⇒ Pathological particularities of thymus in patients with generalizes myasthenia gravis;
- ⇒ Pathological particularities of immunologic response in patients with autoimmune diseases.



Doctor of Medicine, full professor Protsenko O. S. and Candidate of Medicine, associate professor Remneva N. A. and Omelchenko V. F. are on the clinical base of the Department



Together with the staff of clinical base of the V. T. Zaitsev Institute of General and Emergency Surgery National Academy of Medicine of Ukraine, a series of comprehensive scientific studies have been carried out and also morphological part of the task was performed:

- ⇒ Pathological particularities of liver resection margins after various surgical techniques;
- ⇒ Pathological particularities of hepatobiliary system in patients with cholecystocolic fistula of different limitation period;
- ⇒ Pathological particularities of ileocecal junction as a substitute reservoir after gastrectomy;
- ⇒ Pathological particularities of changes in tissues and peritoneal mesothelium after treatment of acute diffuse peritonitis;
- ⇒ Pathological particularities of vascular component of liver resection edge after using of high frequency electrosurgical unit diathermy machine;
- ⇒ Pathological particularities of venous wall after varicose veins treatment using different surgical techniques;
- ⇒ Pathological particularities of peri-gallbladder infiltration, tissues and abdominal mesothelium in patients with acute destructive cholecystitis complicated by peritonitis;
- ⇒ Pathological particularities of injury of peripancreatic connective tissue and retroperitoneal connective tissue in patients with acute subtotal septic and autoimmune pancreatitis.

Since 2011 with cooperation with researchers from the M. I. Sytenko Institute of Spine and Joint Pathology of National Academy of Medicine of Ukraine, our investigators have been performing their part of research project 'The Particularities of Pathogenesis in Circadian Rhythms of Transient Back Pain'. The study is a piece of research 'The Study of prevalence of transitory back pain in professors and researchers in Kharkiv City'. The goal of the study is to explore the prevalence and particularities of manifestation of transitory back pain in professors and researchers in Kharkiv City. The Primary Investigator of the study is Dr. Korzh.



Members of our school successfully developed the questioner to survey researchers and professors. The goal of the survey is to identify the cause of transitory and persistent back pain, excluding vertebral and neurological cause, and to develop guidelines in prevention and treatment of the pain. The survey has been implemented on professors, researchers, students and staff (control group) in different seasons.

The Department provided a research environment that encourages the contribution of independent, original thought and the application of rigorous methods to the creation of new scholarly research resulting in completion and defense of 2 PhD and 2 Doctorate Research. In present time two more PhD research works are performing.

Results of scientific studies of our school has been published in 5 peer-reviewed research papers with impact-factor and included in international database, in 135 articles in national peer-reviewed research magazines, in 65 articles in others publishers. Ultimately, research works reflect an original contribution to knowledge and results in obtaining of 11 patents and certificates of authorship.

Our professors published the textbook in pathomorphology approved by the Ministry of Science and Education of Ukraine as the textbook for medical students and biologists (Protsenko O. S., Remnyova N. O., Sherstyuk S. O., Pleten O. M., Sidorenko R. V. General Pathomorphology. Textbook. – Kh.: KhNU, 2011. – 196 p.). Furthermore, our school published five monographs and 68 review courses for medical students in Pathophysiology, Pathomorphology, Histology, Forensic Medicine, and Sectional courses. Dr. Vladimir Padalko and Dr. Anatoliy Bozhkov submitted for publishing the monograph ‘The Aging as a manifestation of body metabolic adaptation’–LAP LAMBERT Academic Publishing, 2015. – 212 p. Other members of our department, Dr.Belozerov I.V., Dr.Olena Protsenko, Dr. Nataliya Remneva, successfully submitted a reference book ‘Laboratory tests and diagnostic procedures’. Publication is scheduled in publishing house of V. N. Karazin Kharkiv National University on September 2015.

Our investigators often report the results of their research work on 38 conferences, congresses, symposiums and scientific forums.

Members of Student’s Scientific Society, Chapter Pathology, and our school organized 12 conferences for young investigators.



The Museum of Human Pathomorphology is precious. At present time, it is located in detached building and included more than 600 micro specimens and more than 5000 slides. The museum collection is still growing.

Medical students take an active part in research conducting by our school. Young investigators perform the study to develop a working knowledge and understanding of the general principles of research methodology, as well as Human Anatomy knowledge, autopsy skills, etc. These passionate to pathology students are members of Student's Scientific Society, Chapter Pathology. During meetings of the chapter, new specimens for the museum are prepared; morphology of each specimen is discussed, documented and analyzed. By all means topics of interesting cases or presentations in morphology, histology, cytology, embryology, and anatomy are always considered.

Students studied morphologic particularities of changes in fetal organs under influence of different maternal health conditions during pregnancy. The great interest for research is ethiopathogenesis and laboratory diagnostics. The favorite topic among the students is oncologic pathology. It should be mentioned Student's Scientific Society, Chapter Pathology, is welcoming Russian and English speaking medical students who wish to pursue or to explore the career in pathology.



In 2015, we are delightful to introduce the new research project to our researchers and students: "The pathology of immune system during autoimmune



disorders in human". This topic allows studying the mechanisms of autoimmune disorders development, particularities of pathogenesis and pathomorphology in different disorders of immune system. Primary research probes started along with literature review.

Honoring the impact the Department of General and Clinical Pathology accomplished for 20 years of its existence we prepared the historical book 'The Department of General and Clinical Pathology: from the beginning of time to the present'. In April 2016, the publishing house of V. N. Karazin Kharkiv National University will publish it.

DEPARTMENT'S CLINICAL BASE

The Department of General and Clinical Pathology offers the unique and diverse strengths of its associated hospital, while maintaining a consistent standard of excellence in its educational role. The main principle of credit-modular system is increasing volume of material for student's self-education. Over the above, clinical practice plays the main role in education of medical students.





The fully affiliated hospital with the Department of General and Clinical Pathology is V. T. Zaitsev Institute of General and Emergency Surgery National Academy of Medicine of Ukraine, which is the one of teaching and research surgery hospitals with reach history and international recognition. On the basis of the Department of Pathology of the Institute of General and Emergency Surgery, students practice their skills on the subjects that are studied in the department. During practical lessons, school and students use clinical equipment, technical educational tools, concrete materials, morphological slides, etc. Medical students have a unique opportunity to participate in performing of forensic and clinical autopsies to study morphological particularities of organs and tissues in different types of pathology.





Clinical practical lessons help students to consolidate theoretical knowledge and enhance clinical thinking. Students learn to analyze etiology, pathogenesis and morphological features of common diseases. Obtained indispensable skills and working knowledge are essential for future medical education and clinical practice to make the correct choice in clinical decision-making process.

In after class time medical students of 1st – 3rd years of education actively participate in clinical work of the Department of Pathology of the Institute.

Students of 4th-6th years of education observe and perform autopsy under close supervision of members of the school and pathologists of the Department of Pathology of the Institute.

Members of the Student's Scientific Society, Chapter Pathology, take active part in research projects, executing in the department's labs.

School of the Department of General and Clinical Pathology conduct clinical work with students in the range recommended by Pathomorphology and Pathophysiology curriculums at the Department of Pathology of the V. T. Zaitsev Institute of General and Emergency Surgery National Academy of Medicine of Ukraine.

Furthermore, staff of the Department of General and Clinical Pathology performed and advise autopsy and examine biopsies of patients.

Staff of the Department of General and Clinical Pathology, together with members of the Institute take part in seminars; clinical, pathological, and scientific conferences; work of experts' commission; clinical rounds; medical councils; organize scientific conferences and also plan and conduct scientific research and develop training manuals.



CONTACT INFORMATION

DEPARTMENT OF GENERAL AND CLINICAL PATHOLOGY

Address: 61077, Kharkiv, Svobody Sq. 6, V. N. Karazin Kharkiv National University, School of Medicine, Department of General and Clinical Pathology, r. № 594

Website: <http://pat-anatomy.univer.kharkov.ua>

E-mail: olena_protzenko@ukr.net

Phone: +38 (057) 707 – 56 – 25

Location map: <https://goo.gl/maps/1wpV6b6mqME2>