

UDC 929.52+614.23+614.258.1+378.242
DOI: 10.56871/MHCO.2024.48.75.008

REMEMBERING THE TEACHERS

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Contact information: Alexander P. Shcherbo — Corresponding Member of the RAS, Doctor of Medical Sciences, Professor.
E-mail: ashcherbo@yandex.ru ORCID: <https://orcid.org/0000-0002-6059-4758> SPIN: 4459-2875

For citation: Shcherbo AP. Remembering the teachers. *Medicine and Health Care Organization*. 2024;9(1):81–94.
DOI: <https://doi.org/10.56871/MHCO.2024.48.75.008>

Received: 25.01.2024

Revised: 19.02.2024

Accepted: 14.03.2024

ABSTRACT. The article is dedicated to the memory of two outstanding Russian hygienists with complex destinies and features of characters, who had crossed life paths and were accompanied by radical scientific contradictions. First of them is Professor Grigory V. Khlopin (1863–1929), until 1917 — full state councilor, holder of the Order of St. Stanislav and two orders of St. Vladimir, in Soviet times — Honored Scientist of Russia, founder and head of several departments of higher learning in the country, author of many manuals, textbooks and monographs. Khlopin was the first in our country to develop a training program for sanitary doctors and introduced it at his educational department already in 1912. During the First World War, on behalf of the Artillery Directorate of the General Staff, he organized an Anti-Gas Laboratory at the department, which developed effective means of protection in case of chemical warfare. G.V. Khlopin completed his career at the Military Medical Academy, where he headed the department of hygiene. Another outstanding hygienist to whom this article is also dedicated is Professor Zakhary G. Frenkel (1869–1970), whose life also took place in two contrasting eras. Until 1917, he was a graduate of Dorpat University, an active figure in the area of zemstvo medicine — clinician, epidemiologist, demographer, deputy of the 1st State Duma, member of the Central Committee of the Constitutional Democrats Party. In Soviet times, Frenkel was the organizer of the Hygiene Department at the City Museum, the founder and head of two departments at the Institute for Advanced Medical Studies, Social and Communal Hygiene, an academician of the USSR Academy of Medical Sciences, and a long-term leader of the Leningrad Society of Hygienists and Sanitary Doctors. Z.G. Frenkel considered the main work of his hundred-year life to be the monograph “Life extension and Active Aging”, which is considered the “bible” of social gerontology. The article contains little-known facts from the biographies of these two outstanding scientists, presents the nature of their scientific disagreements, arising, among other things, from complicated characters, which adds non-standard colors to their portraits.

KEYWORDS: G.V. Khlopin, Z.G. Frenkel, outstanding hygienists, destinies in two epochs, scientific achievements and contradictions, character traits

ВСПОМИНАЯ УЧИТЕЛЕЙ

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Контактная информация: Александр Павлович Щербо — чл.-корр. РАН, д.м.н., профессор.
E-mail: ashcherbo@yandex.ru ORCID: <https://orcid.org/0000-0002-6059-4758> SPIN: 4459-2875

Для цитирования: Щербо А.П. Вспоминая учителей // Медицина и организация здравоохранения. 2024. Т. 9. № 1. С. 81–94. DOI: <https://doi.org/10.56871/MHCO.2024.48.75.008>

Поступила: 25.01.2024

Одобрена: 19.02.2024

Принята к печати: 14.03.2024

РЕЗЮМЕ. Статья посвящена памяти двух выдающихся отечественных гигиенистов со сложными судьбами и характерами, жизненные пути которых пересекались и сопровождалась при этом радикальными научными противоречиями. Первый из них — профессор Григорий Витальевич Хлопин (1863–1929), до 1917 года — действительный статский советник, кавалер ордена Св. Станислава и двух орденов Св. Владимира, в советское время — заслуженный деятель

науки России, основатель и заведующий несколькими кафедрами в стране, автор многих руководств, учебников и монографий. Хлопин впервые в стране разработал Программу подготовки санитарных врачей и внедрил ее на своей кафедре уже в 1912 году. В период Первой мировой войны по поручению Артиллерийского Управления Генерального штаба организовал на кафедре Противогазовую Лабораторию, которая разработала эффективные средства защиты на случай химической войны. Завершил свой жизненный путь Г.В. Хлопин в Военно-медицинской академии, где заведовал кафедрой гигиены. Другой выдающийся гигиенист, которому посвящена эта статья, — профессор Захарий Григорьевич Френкель (1869–1970), жизнь которого протекала также в двух контрастных эпохах. До 1917 года он, выпускник Дерптского университета, активный деятель земской медицины — клиницист, эпидемиолог, демограф, депутат Первой Государственной Думы, член Центрального Комитета партии Конституционных демократов. В советское время Френкель — организатор Гигиенического отдела в Музее Города, основатель и руководитель двух кафедр в Институте усовершенствования врачей, социальной и коммунальной гигиены, академик АМН СССР, многолетний руководитель Ленинградского Общества гигиенистов и санитарных врачей. Главным трудом своей столетней жизни З.Г. Френкель считал монографию «Удлинение жизни и активная старость», которая считается «библией» социальной геронтологии. Статья содержит малоизвестные факты биографий этих двух выдающихся ученых, представляет характер их научных разногласий, вытекающих, в том числе, из сложных характеров, что добавляет нестандартных красок в их портреты.

КЛЮЧЕВЫЕ СЛОВА: Г.В. Хлопин, З.Г. Френкель, выдающиеся гигиенисты, судьбы в двух эпохах, научные достижения и противоречия, свойства характеров

On 16th April 2024 Alexander Pavlovich Scherbo — Doctor of Medical Sciences, Professor, Corresponding Member of the Russian Academy of Sciences, Honoured Worker of Higher Education of the Russian Federation, prominent Russian hygienist and teacher — is 80 years old!

Alexander Pavlovich is the author of more than 600 scientific publications, including about 50 books. He prepared 11 doctors and 16 candidates of sciences. He wrote the monographs “Grigory Vitalievich Khlopin. Leafing the pages of history” (2006) and “Zakhary Grigorievich Frenkel. A Century Long Life” and was awarded the N.A. Semashko Prize of the Russian Academy of Medical Sciences in 2012.

We heartily congratulate Alexander Pavlovich, a member of the Editorial Board of our journal, on his jubilee, wish him good health and many years of fruitful work! The article published here about outstanding Russian hygienists partially reflects the life path of the jubilee.

I dedicate these notes to my teachers — of course, not only my teachers — and, unfortunately, to those who are gone. They are Professor Grigory Vitalievich Khlopin (1863–1929, 66 years old), Honoured Scientist of the RSFSR, and Professor Zakhary Grigorievich Frenkel (1869–1970, 100 years old), Academician of the Academy of Medical Sciences of the Soviet Union — also because they were my predecessors in the walls of the “Khlopin’s” hygienic department at the building number 41 in Kirochnaya Street. Why so casually — “within the walls” — I will explain a little later, there is a small historical mishap here.

Usually such articles are written on the days of anniversaries and personally to the jubilarians. Here, outside the jubilee dates, I will try to remember two great scientists, whose lives took place in very contrasting eras and intersected, sometimes dramatically, in scientific, official and

social terms. To remember, perhaps in a somewhat updated perspective, two outstanding people who had political problems both “before” and “after”, managed to preserve themselves during the Soviet years, and, in addition, at the beginning of the last century worked under the same roof.

However, other dates are also contribute to these notes: last year 2023 marked the 160th anniversary of G.V. Khlopin’s birth, and this December we can celebrate the 155th anniversary of Z.G. Frenkel. It is probably worth remembering the death of G.V. Khlopin on 30th of July 1929 — he will be 95 years old — which caught up with him suddenly, at his desk, while preparing documents for election to the Academy of Sciences of the USSR. Let me remind you that the Academy of Medical Sciences was not yet.

Alas, for an outstanding scientist this election (which he undoubtedly deserved) did not happen.



Fig. 1. Grigory V. Khlopin

Рис. 1. Григорий Витальевич Хлопин

However, two years earlier, the Council of People's Commissars awarded the scientist the honorary title of Honoured Scientist of the RSFSR, which in those years was very rare and had an exceptionally high public status. His biography was published, and among the congratulations, a solemn letter from the hygienists of Leningrad, signed by a group of specialists headed by Professor Zakhar Frenkel, *Chairman of the Society of Sanitary Workers and Epidemiologists*, stood out.

The achievements of Grigory Vitalievich in the field of scientific hygiene, training of specialists and sanitary practice do not need to be described here, they are widely covered in the literature, including the books of the author of this article. In this article I will bring only some bright facts of his biography. For example, Khlopin's intellect, pen and energy belonged to the first in Russia "*General programme of courses for training of sanitary doctors*", with the initiative of implementation in the practice of teaching which he came forward in 1912. It was implemented in his department starting from the spring semester of the same year.

Grigory Vitalievich Khlopin (Fig. 1) founded the Department of Hygiene with General Bacteriology at the Imperial Clinical Institute of the Grand Duchess Elena Pavlovna in 1906¹. Subse-

¹ On the website of the I.I. Mechnikov North-Western State Medical University (NWSMU) in the section "History of the Department of Communal Hygiene" the year 1806 is erroneously indicated.

quently, the chair became the progenitor of other educational units of the prophylactic vector. First courses, then full-fledged departments, which later developed into the Faculty of Sanitation and Hygiene; in the later St. Petersburg Medical Academy of Postgraduate Education (SPbMAPO) — the Faculty of Public Health, the dean of which I had the opportunity to serve for several years.

It is clear that I could not be a direct disciple of G.V. Khlopin, because the maestro of hygiene died before the war, and I was born only in the penultimate year of the war, and for another seven years, at least, I did not study sciences, especially medicine. At the same time I happened to be a follower of his departmental work and therefore partly a pupil for three decades. When from the end of the 70s of the last century and in the first decade of this century together with the team we continued to master the science of hygiene, including primary sources, the departmental library kept the manuals created by G.V. Khlopin, with edits and notes by his hand.

Let me note that Grigory Vitalievich for a relatively short period of creative life published scientific texts... 5736 (!) typographical pages, or about 560 printed sheets of fundamental scientific works alone. This is an incredible scale even for today's major figures of the scientific world. Such legacy of G.V. Khlopin are four volumes of "Methods of Sanitary Research", three volumes of "Fundamentals of Hygiene", textbook "Course of General Hygiene", manual "Military and Sanitary Fundamentals of Gas Masking" and a number of others. When at writing a monograph about him and compiling a list of his works I myself began to count, the volume of his works, without reprints, amounted to more than seven thousand pages [7]. Productivity due to diligence, erudition and organisation is fantastic.

I will notice, that Khlopin published his capital works without co-authors (which, probably, could be, and were, his employees) that speaks, on the one hand, about encyclopaedic own knowledge of the scientist, and on the other hand — about some properties of the character which we also will mention.

Let's pay attention to the fact that Grigory Vitalievich, being a professor of hygiene at the Odessa University, was elected there also the Chairman of the port sanitary trusteeship, and in this capacity he showed himself as a promising organiser and leader. And that is why in 1904 he was invited to St. Petersburg not at all to organise a chair in the Eleninsky Institute, but to the post of head of the

medical and sanitary part of the educational institutions of the Ministry of National Education.

Among the thirteen ministries under the wing of Prime Minister S.Y. Witte there was no Ministry of Health, these functions were performed by various departments of the Ministry of Internal Affairs. There were chronic reorganisations of the sector of “public health”, not quite successful and, probably because of this, in the Ministry of Public Education it was decided to create its own medical and sanitary part, to organise and head which was invited G.V. Khlopin. At the same time he began to teach as a professor of the hygiene department of the St. Petersburg Women’s Medical Institute. Grigory Vitalievich remained an official of rather high rank until 1911.

In the same year, 1904, the Imperial Clinical Institute of the Grand Duchess Elena Pavlovna held a meeting of teachers, which decided to petition for the establishment of a department of hygiene with general bacteriology. In September of the same year, the highest permission to establish the department was received, and the new anatomical-hygienic building was laid, where the department existed on the first floor for 105 years [2], until it was disbanded in connection with the merger of the St. Petersburg Medical Academy of Postgraduate Education (SPbMAPO) and the I.I. Mechnikov State Medical Academy. I.I. Mechnikov State Medical Academy (GMA) in 2011. Professor G.V. Khlopin, already a well-known scientist and at the same time, as we know, a state official, was invited to head the department. The official milestone of the beginning of the department’s activity is autumn 1906, when the course of chemical and bacteriological methods of sanitary research and practical classes began. Until 1912, the training at the department was conducted by clinicians; the training of sanitary physicians according to the programme developed by Khlopin, as indicated, began in 1912.

Grigory Vitalievich, awarded the Order of St. Stanislaus and two orders of St. Vladimir, was a significant figure in the capital, so it was not difficult for him to attract to teaching large and well-known experts and public figures, such as the deputy of the State Duma A. I. Shingarev¹ (basics of the State Duma). I. Shingarev (basics of public medicine), S.K. Dzerzhgovsky (questions of disinfection), D.K. Zabolotny (epidemiology), G.Y. Yavein

(cholera, typhuses), G.D. Belonovsky (doctrine of immunity). Among them was the former deputy of the First State Duma, Z.G. Frenkel, who, being an experienced zemstvo worker, read the organisation of practical medicine. Thus, the work of the future academician began here in 1911.

It should be noted that the beginning of practical activity of G.V. Khlopin’s eldest son — an outstanding Russian radiochemist, Hero of Socialist Labour, three times laureate of the Stalin Prize, Academician of the USSR Academy of Sciences, Professor Vitaly Grigorievich Khlopin (there is a street named after him, as well as the Radium Institute named after him, which he headed for many years, in modern St. Petersburg), who in the tenth years of the twentieth century, being a student of the University, worked as a lecturer at his father’s department.

The First World War that broke out dictated its own imperatives: after the Germans used poisonous substances, a Chemical Committee was organised under the Main Artillery Directorate of the General Staff. The presence in the Clinical Institute of the Department of Hygiene, headed by G.V. Khlopin, who had a background in physics and mathematics at the Faculty of Physics and Mathematics of St. Petersburg University and the Faculty of Medicine of Moscow University, served as a basis for the Chemical Committee to appeal to the management of the Institute with a proposal to organise a gas mask laboratory at the department with the manufacture of protective equipment, for which the appropriate funds were allocated. The head of the Laboratory was G.V. Khlopin, who was then, among other positions, the Chairman of the Advisory Commission of the Chemical Committee; the executors were the future Academician of the USSR Academy of Sciences, Professor N.D. Zelinsky, engineer K. Kummant and a number of other specialists close to the subject of activity.

Directives on the development of one of the products — a new design of gas mask (mask, filtering elements, etc.), abound with the words “immediately”, “in view of the urgency of the matter”, “the matter is extremely urgent”, “immediately”, including orders to organise the so-called fumigation to test the reliability of gas masks. On this matter, for example, the directive was given, literally, on Sunday, for discussion on Monday and submission of proposals for the General Staff on Tuesday. The document bears an unsigned visa consisting of a single word — “Executed”. The Khlopin’s handwriting. The war. The tension is unbelievable.

¹ He was zemstvo doctor, public figure, participant in the revolutionary events of 1905-1907, specialist in public medicine, hygiene and sanitation. He was killed by sailors in 1918.

In the monograph on Khlopin in this place I allowed myself this paragraph in brackets and small italics: “Ironically, some fifty years after the First World War, the author of these lines, still far from being a doctor, after sergeant’s school in Osinovaya Roscha, served as a conscript in the Polar North (1963–1966) — as a chemist-instructor-dosimetrist — organised training of soldiers with gas masks, including the very fumigation — with chloropicrin — to test the effectiveness and readiness of gas masks for combat use”. Today I will complete this paragraph: the Zelensky-Khlopin gas mask, developed at that time in the Antigas Laboratory, was, as at its creation, effective and remained in service with the Soviet Army for more than fifty years (!). And I, being a soldier at that time, could not think that I would work for 33 years in the walls of the department where this most reliable gas mask was created, and that I would write articles and books about its creator.

In 2000 Khlopin’s department received a kind of greeting from the Antigas Laboratory of 1915–1916. The department in those days was partitioned along the boards covered with polythene: on one side classes were going on, on the other side, accompanied by various unnecessary sounds for the educational process — that day in the office of assistant professors was undergoing repairs.

Suddenly, I got a phone call in the rectorate, and one of the staff members, in a state of great excitement, reported: while knocking off numerous layers of old plaster, the workers discovered a large safe in the wall.

Remembering the history of the department, I smelled something wrong, forbade to touch the safe and said that in a minute I would be at the department — well, just run across the courtyard. When I burst into that office, I saw the picture shown on the photo. The staff didn’t touch the safe, but the workers were not subject to our prohibitions, even if they were vice-rectors: with crowbars they somehow twisted the rusty safe out of the wall (gold, diamonds!!!) and managed to open the door (Fig. 2). The jewellery was gone.

In the safe, which was still pristinely clean inside, we found several yellow wooden tripods with wide sockets, glued inside with soft felt. In the sockets were several half-litre vials with lapped corks and the inscription “Mustard gas”.

I do not remember whether I was cold or not: I must suppose that the brown, thick liquid in the vials was mustard gas. One vial was



Fig. 2. A safe from 1915, removed from the wall in 2000

Рис. 2. Сейф 1915 года, извлеченный из стены в 2000 году

empty and half broken, or perhaps it had burst sometime without mechanical intervention. But when? The thought of several premature deaths of relatively young employees in the 1950s–1960s flashed through my mind...

The find was handed over to the invited experts of the Ministry of Emergency Situations, and the staff of the department, as well as the workers who had opened the safe without authorisation, could only be glad that the vials had not been broken during this procedure...

* * *

...We are also grateful to Grigory Vitalievich Khlopin for two outstanding sons, Vitaly and Nikolay, the elder of whom, Vitaly, has already been mentioned. Out-of-town listeners often asked: “Is Khlopin Street named in honour of Grigory Vitalievich?”. I had to explain: “No, in honour of his son — Vitaly Grigorievich”, — and remind about this great scientist with a bright, relatively short life and dramatic fate.

There are many images of the outstanding radiochemist with many awards on his chest in the Internet, but I chose this one for publication (Fig. 3). A beautiful spiritualised face, reminis-



Fig. 3. Vitaly G. Khlopin

Рис. 3. Виталий Григорьевич Хлопин

cent of his father's portraits, but the features are more subtle, from his mother — a high forehead of a gifted man and a sad look through the glasses. It is as if he foresees his unique fate...

It should be noted that before the revolution Vitaly graduated from Göttingen and St. Petersburg universities, as a promising radiochemist was noticed by V.I. Vernadsky, became his assistant and follower, for the first time in 1922 received domestic radium, succeeded in works on radiochemistry of plutonium, which in the late forties was very relevant, for which he was repeatedly awarded. We will return to Vitaly Grigorievich, after a few words about his remarkable younger brother.

Nikolai Khlopin, like his father, acquired two similar higher educations: he graduated from the Faculty of Physics and Mathematics of the Petrograd University and the Military Medical Academy. Moreover, he studied in these universities at the same time! Nikolai Grigorievich's creative life was mainly connected with the Military Medical Academy (MMA), but he also worked at the Institute of Experimental Medicine (IEM), the Leningrad Sanitary and Hygienic Medical Institute (LSHMI), and the Institute of Oncology. As an outstanding morphologist, he worked alongside Academician A.A. Zavarzin of the USSR Academy of Sciences; co-operating and competing, they created two non-contradictory theories of tissue development, which to this day, integrated by modern scientists, serve as the

basis for new research in this delicate field of biology. In 1945, being the Head of the Histology Department of the MMA, Nikolay Grigorievich was elected Academician of the Academy of Medical Sciences of the USSR, and in 1947 he was awarded the Stalin Prize of the first degree.

After being elected at the end of the eighties as head of the Khlopin's department of the State Institute for Advanced Medical Education, I began to actively dig into its history, delve into the archives, ask old men-hygienists about the descendants of Khlopin. In this environment somehow settled opinion that the outstanding sons of the "main" Khlopin children were not and, therefore, the family name dried up. Moreover, nobody knew where the elder Khlopin (!) was buried. Fortunately, one of the veterans (if I remembered who, I'd give a virtual earthly bow today) dropped then, is not the descendant of the famous family historian Khlopin, with whom he once crossed? That was already something!

Today you can type "Igor Nikolaevich Khlopin" in a search box and get a small article about him in Wikipedia. But then through my university friends I got the phone number of an unknown archaeologist Khlopin, called and introduced myself. Igor Nikolaevich at the other end of the line was not very nice at first; then I learnt that for some reason he did not like to talk about his father — there was some deep resentment for him connected with his work in the MMA.

I managed to ask for a visit. It was 1992, Igor Nikolayevich was only 62, but, unfortunately, he had only a couple of years to live. But then he was full of vigour, he introduced me to his wife Lyudmila Ivanovna, also an archaeologist, but who, unlike her husband, a doctor of historical sciences, had only defended her candidate's dissertation. Igor Nikolayevich was charming and witty, he asked about the department, which was founded by his grandfather. Finally, I learnt that "our" Khlopin was buried in the Smolensk Orthodox Cemetery.

To my surprise, Igor Nikolayevich gave me the original of this photograph of his father (Fig. 4) with a gift to him, which, I think, is published for the first time. In case the inscription is not discernible: "*To dear Igor with good hope from Dad. 9.IX.47*".

For the museum of the Leningrad State Institute for Advanced Medical Education, Igor Nikolaevich did not spare unique relics preserved from his grandfather: his doctor's badges on silver with eagles and snakes, an inkstand, an



Fig. 4. Nikolai G. Khlopin

Рис. 4. Николай Григорьевич Хлопин

honourary badge “To a Friend of Dobrokhim” and several welcoming addresses. I dared to ask if the orders of St. Vladimir and St Stanislaus, which were awarded to G.V. Khlopin in the Tsarist times, had been preserved.

Igor Nikolaevich regretfully replied that there were only the so-called “frachnye” rosettes to these orders (miniature copies of awards to wear instead of orders). And the orders themselves during the siege of Leningrad were exchanged for food for starving family members. And I thought then: it was a pity, of course, the original Khlopins orders (their copies were exhibited in our department until her “demise”), but this regret dissolved in the bright consciousness that the great hygienist and man, through the years, perhaps saved his descendants from starvation. I didn’t dare to ask for the rosettes at that time.

Igor Nikolaevich also explained that he has two sisters (!), i.e. daughters of Nikolai Grigorievich and granddaughters of the great hygienist. The elder one, Natalya Nikolaevna (she was born in 1928), is from the second marriage, and the younger one Tatiana Nikolaevna (she was born in 1931) is from the third marriage. I got the coordinates of Tatiana Nikolaevna.

Igor Nikolaevich also told me a lot of interesting things about his great uncle who was a radiochemist. There were no descendants at him, apparently, therefore it was considered, because of his popularity, that there is no continuation of a sort of Khlopins. The uncle, as we know, was engaged in defence research of radioactive

substances; according to Igor Nikolaevich, in the twenties of the last century he even carried a test tube with radium in his breast pocket (!). The dangers of radium were not fully known at that time; it was even used in medicinal mixtures, and because it glowed, it was also applied to the numerals of wristwatches.

We know that two-time Nobel laureate Marie Curie discovered radium at the beginning of the century. She worked with it throughout her life, but died of radiation disease only in 1934. Only by this time the danger of radium to health became quite obvious; hence it is clear why the outstanding scientist in the 1920s so tolerant, if not to say frivolous, treated this relatively new element of the Mendeleev table.

Vitaly Grigorievich was an unusually modest and closed person, apparently because of the categorical secrecy of his existence. From conversations with Igor Nikolaevich it turned out that he knew nothing about his uncle’s first marriage and the fate of his wife. However, in that marriage there was a daughter who died at the age of eight, which the uncle-radiochemist experienced severely. He surmised that her death was related to the consequences of his work. After this drama, Vitaly Grigorievich categorically did not want to have children. And he did not have any.

His second marriage was no less dramatic. His wife, Maria Alexandrovna Pasvik, was his employee and life partner until the end of his days. Their marriage was complicated by Maria Alexandrovna’s large family — three sisters and brother, they were disadvantaged in terms of mental health. In particular, her brother posed himself as Nikolai II, which was not quite convenient in the 1930s-1940s, and the younger sister died in the 3rd Psychiatric Hospital, and the anti-soviet nature of her delusions caused V.G. Khlopin a great deal of troubles. It is necessary to believe that this extremely difficult family environment, together with dangerous work, took away a lot of health from the scientist. Nevertheless, he fully supported everyone, including payment for a rented flat for his wife’s relatives. In 1945 Vitaly Grigorievich suffered his first stroke, after which he did not fully recover; strikingly enough: being the director of the institute, out of modesty, he refused a personal car (!), which added drama to his last hours.

On the 10th of July 1950 he died in a tram on his way to work; as Igor Nikolaevich told me, the passengers decided that the man was drunk,

took him out of the tram and put him against a fence to have a rest...

Nobody knows when the ambulance arrived. Pathological diagnosis was massive haemorrhagic stroke. Chronic radiation disease. He was only 60 years old. He was buried in the tomb of the Alexander Nevsky Lavra.

...Talking about his older sister (on his father's side), Natalia Nikolaevna, Igor Nikolaevich did not say much about her; she was a pathologist, and he did not say what happened to her family¹. As for his younger sister, Tatiana Nikolaevna, Igor Nikolaevich was not reassuring: she was old, lonely, unsociable, lived with an unmarried adult son who had something wrong with his head. Everything was later confirmed: Tatiana Nikolaevna spoke to me very sparingly on the phone and refused to meet me. But a decade and a half later I saw her...

...In 1995 SPbMAPO was headed by the future academician N.A. Belyakov (I got fewer votes at the rector's election) — an outstanding (in my opinion) scientist, leader and person. I became the first vice-rector, vice-rector for academic work. The 12 years of joint work with Nikolai Alekseevich in the rectorate at that difficult time for the country were the best years of my life.

The new rector was very reverent about the history of the Institute and infected his whole team with this enthusiasm. The house church was revived, several collective monographs about the Institute of the previous years were written and published, the main lobby was decorated with a gallery of picturesque portraits of major scientists, our predecessors (including G.V. Khlopin), and a large picture of the Grand Duchess Elena Pavlovna, the founder of the Imperial Clinical Institute.

By this time I had visited the grave of G.V. Khlopin in the Smolensk cemetery and found it in a deplorable condition: behind the light fence, a simple shell was visible, and the cross, which had fallen off, was leaning against the fence. I took some photographs to present them to the Rector. It was clear that the grave, unfortunately, was not visited by anyone.

¹ My close friend and colleague at the Russian Academy of Sciences Nikolai Milievich Anichkov did not clarify the situation today either, informing only that at the Department of Pathological Anatomy, which he headed for many years, Natalia Nikolaevna Khlopina really worked as a physician-projector in the 1980s. Nothing is known about her family status and possible descendants.



Fig. 4. Monument to G.V. Khlopin at the Smolensk Cemetery

Рис. 4. Памятник Г.В. Хлопину на Смоленском кладбище

On our initiative, the burial place of G.V. Khlopin was taken under state protection, and we were assured that in the near future reconstruction of the cemetery Khlopin's grave would be moved to the Pantheon of burials of great people who found their resting place here. "A long tale is told...", but we managed to get the grave preserved in its original place. As we now know, no Pantheon was created.

In 2004, Nikolai Belyakov decided to create a monument on the grave (to replace the tombstone, which was almost destroyed by time). The monument was made of red granite with a bronze bas-relief of the deceased designed by Svetlana Sergeevna Platonova (1941–2018), a member of the Union of Artists of the Russian Federation, professor at the Stieglitz Academy. The monument was erected, opened and consecrated during the celebration of the 100th anniversary of the Department of Medical Ecology and Epidemiology named after G.V. Khlopin. G.V. Khlopin in September 2006 (Fig. 4).

In my opinion, while embodying the new monument, the sculptor used the motif of the tombstone of the hygienist's son, radiophysicist

V.G. Khlopin in the Alexander Nevsky Lavra (the photo is available on the Net, everyone can compare it). This similarity cannot be regarded as a drawback, on the contrary, there is a symbolic continuity, albeit with a reverse “vector”. Apart from hygienists of our city, the opening of the monument was attended by high guests from Moscow: Academicians N.F. Izmerov, N.V. Rusakov, Professors B.A. Revich, M.V. Fokin and other major hygienists.

The granddaughter of G.V. Khlopin Tatiana Nikolaevna, whom I had not been able to meet before, also responded to the invitation: the elderly woman laid flowers at the monument to her grandfather, but she avoided visiting the department of his name and generally avoided communication as before... Now her ashes rest here, as evidenced by the granite slab at the foot of the stele. On the photo we took on the day of the opening, there is no memorial slab yet.

For many years in a row, the department acted as the organiser of the annual scientific conference “Khlopin Readings” with the publication of a collection of publications on the subject of the next meeting. On this day, usually in June, we together with doctors visited the grave of our founder, said the appropriate words and laid flowers. “Khlopin Readings” were held until the merger of the two institutes in 2011; the last, XXXIV conference was held that year. Probably, it would not be superfluous for the hygienic departments of I.I. Mechnikov North-Western State Medical University to revive this tradition in memory of our common teacher.

* * *

...I could still be a student of Academician Z.G. Frenkel (though, also rather conditionally). I remember the 24th of December 1969, the department of communal hygiene of Leningrad Sanitary-Hygienic Medical Institute under the leadership of a remarkable front-line soldier Professor Vladimir Afanasievich Rudeyko and myself, a six-year student, a member of the student scientific society at this department. Since, I was going to continue my education under the wing of Vladimir Afanasievich after receiving my diploma, I devoted my extracurricular time to work at the ancient laboratory of the department: that day I was doing some experiments on chlorine absorption of water.

My assistant Mira Nikolaevna Kuklina; my, not afraid of this word, charming curator, put-

ting on a fur coat, asked me if I wanted to go together with the teachers to the Military Medical Museum to honour the 100-year-old academician Z.G. Frenkel. I had already heard something about long-lived Frenkel and his works from the course of social hygiene, from the examination of which Professor E.Y. Belitskaya had generously released me, but I did not attach due importance to the event and did not join the department. I would have known then that in 40 years I will have to write a monograph about the scientist of considerable thickness [8].

And then, in the Military Medical Museum, where after an abyss of years a remarkable servant of the history of military medicine Igor Petrovich Kozyrin helped me to collect materials about Frenkel, I could see how 100-year-old Zakhar Grigorievich, despite the fact that he was blind, went up to the third floor and within forty minutes read a witty and bright lecture. And everyone in the hall became his students, including the fifth-year student Rashid Bakhtiyarov, who devoted his whole life to preserving the memory of the outstanding scientist. And I could not become Frenkel’s “student” at that time. But then I made up for lost time.

* * *

In 1918, Grigory Vitalievich Khlopin accepted the offer of the Military Medical Academy and in March became head of the Department of General and Military Hygiene there. He left other institutions where he worked, leaving behind him only the department at the Women’s Medical Institute, where, as well as at the Military Medical Academy, he worked until the end of his days. G.V. Khlopin left the “Eleninsky Clinical Institute”, and his successor took over the department already in the “Soviet Clinical Institute for Advanced Training of Doctors”. This renaming by the decree of the Council of People’s Commissars of the RSFSR happened on the 14th of June 1918 [3].

It was not Z.G. Frenkel, as it is sometimes written, but Professor Kazimir Vikentyevich Karaffa-Korbut, who emigrated four years later and was later known as an outstanding Polish hygienist, who took over the chair of hygiene with general bacteriology. After K.V. Karaffa-Korbut’s departure, the Chlopin’s department was headed by Konstantin Erastovich Dobrovolsky, and Z.G. Frenkel, already a well-known specialist in the field of public medicine, organised the department of social hygiene in 1923, which was



Fig. 5. The first page of the newspaper "The Times" on March 15 (28), 1913

Рис. 5. Первая страница газеты «The Times» 15 (28) марта 1913 года

transformed into the department of communal hygiene in 1931. The two departments worked together until 1952, when after Frenkel's dismissal his chair was merged with the Khlopinskaya one.

Back in pre-revolutionary times, in March 1913, the newspaper "The Times" published a large article by Z.G. Frenkel under the title "Zemstvo. Recent Crisis — A Variety of Energetic Activity" (Fig. 5). It was the "Russian Number" ("Русский Номеръ") of the newspaper, in Russian, a copy of which I was lucky enough to receive as a gift in the early noughties from the academician's son Ilya Zakharovich (1919–2011) and granddaughter Tatiana Ilinichna (we wish her good health, we are still in touch). The article was first published in full in the Frenkel Anniversary Collection in 2009 [1].

To appreciate its scale, as well as the range of knowledge of the already well-known public

figure Zakhar Frenkel, it is enough to cite only the titles of the sections of the article: "Zemstvo's statelessness", "The law on the limit of taxation", "The decentralisation of the zemstvo", "The school construction", "Medical and pharmaceutical aid — free of charge", "The water supply", "Zemstvo telephones", "Zemstvo cement factories", "Zemstvo small credit".

Zakhar Grigorievich's article evokes a sincere feeling of pride for our country: it is full of optimism, imbued with true patriotism, including because it refers to the period of Russia's rise, successfully overcoming the social and military cataclysms of the early twentieth century.

In the twenties, Z.G. Frenkel was already an experienced and well-known specialist in the field of public medicine, as early as 1913 at the Psychoneurological Institute he read the course "Public Medicine and Sanitation". And in 1919, in the hardest years of devastation, Zakhar Grigorievich published a major work "Social Medicine and Social Hygiene, as a science and as a subject of teaching in higher education". In 1926, the work of Z.G. Frenkel was published as a separate book under the title "Social Medicine and Social Hygiene". It was the first textbook on the speciality, the basic provisions of which, despite the steep turns of social policy during the last century, formed the basis of practically all subsequent manuals.

It should be noted that Khlopin's and Frenkel's views on social hygiene, to put it mildly, did not coincide. Schematised contradictions can be presented as follows: G.V. Khlopin denied social hygiene independence, fearing that the new specialty, as well as the new direction in science, would emasculate the social component from hygiene as such — general, communal, food, etc., as well as the social component of social hygiene. Maitre believed that elements of social hygiene should accompany the hygienic sciences in order to ensure their true humanitarian mission.

Characterising Z.G. Frenkel's position, in my book about him I cited the difficult questions that he, perhaps in a milder form, posed to himself in those years: "How to preserve social hygiene as a science and now as a socialist practice, in conditions when a society of total brotherhood and equality is being built, where social causes affecting human health cannot and should not exist? Is social hygiene as a science independent, does it have its own subject and method, or is it only a kind of «service sphere» called to disciplinarily accompany other hygienic (and not only) sciences



Fig. 6. Zakhary Frenkel — deputy of the First State Duma, 1906

Рис. 6. Захарий Френкель — депутат Первой Государственной Думы, 1906 год

and provide them with correct and politically competent statistical-demographic materials?” [8].

For Zakhar Grigorievich, the answer was obvious. However, discussions on this issue continue and, probably, “philosophically” will continue further. Let’s recall at least the article of a prominent public health specialist Professor V.N. Filatov, where he analyses the positions of our heroes and finds contradictions and shortcomings in both [4]. In any case, if G.V. Khlopin had not moved to the MMA in 1918, it is doubtful that the department of social hygiene under Z.G. Frenkel would have been born in “his” walls at Kirochnaya 41...

In the severe twenties, when only two goats saved his family in Lesnoy from hunger (where the owner cut grass for them is a separate story), simultaneously with the department, Zakhar Grigorievich found strength to manage the Department of Communal and Social Hygiene in the Museum of the City. The Soviet authorities provided the Anichkov Palace for the extensive exposition, which housed Frenkel’s Department in 15 rooms. In the early 1930s this Department was disbanded for political reasons, and Zakhar Grigorievich was dismissed. The museum itself did not last long there: in 1932 it was merged with the Research Institute of Municipal Economy and had every chance to become just a fact of history.

However, the Museum of the City “died” then not completely. Those exhibits from the rich collection that were not sold abroad had to be placed somewhere. And in 1938 the renewed museum, which can

be sarcastically called “*rising from the ashes of wormwood, cleansed by the starry dawn*”, was given the Rumyantsev Palace on the English Embankment, and later moved to the bastions of the Peter and Paul Fortress, where it successfully stays even now. There is a wonderful film about it with a somewhat strange for the modern ear title “The Most Deliberate Museum”, which, it must be assumed, refers us to F.M. Dostoevsky, who in “Notes from Underground” called St. Petersburg “a deliberate city”. The film, alas, contains nothing about Frenkel’s Department.

Perhaps, somewhere in the storerooms there are items from the future academician’s exposition, “remembering the warmth of his hands”. Some optimism in this respect is inspired by the fact that recently a representative of the museum visited me and after an interesting conversation asked for a book about Frenkel for the museum library. I signed the book for them.

To make the figure of Zakhar Frenkel more complete, it is impossible not to mention an episode of the twenties, when he and all his household in Lesnoye (his wife Lyubov Karpovna and three daughters) showed themselves in the highest human quality. The case concerns, surprisingly enough, the Kronstadt uprising of 1921.

Today we know, that the Kronstadt revolt was political only in the sense that its participants, united by “undiluted” island unity, “under-propagandised” sailors, opposed the domination of one party, which had taken power by bayonet and lies, brutally burning out any dissent (pre-revolutionary, “multi-coloured” sentiments were still fresh in Kronstadt). The insurrectionists rejected the Bolsheviks’ illegal, cynical monopoly on power, their slogan was “Soviets without Bolsheviks!”, which was a resolute, noble, but, alas, belated and futile attempt to correct the mistakes of 1917...

It would seem that Frenkel had nothing to do with this new situation, saving his family and himself by all means; after all, there is no doubt that the former prominent cadet, especially a member of the Central Committee of this party, a member of the Duma, and an active figure in the Provisional Government, had always been “on the pencil” of the organs, which affected the fate of his department in the Museum of the City, his arrest in 1938, and other difficult episodes of his long life.

The Bolsheviks declared the Kronstadt events to be a rebellion led by Entente agents and general Kozlovsky — Zakhar Grigorievich’s friend and neighbour on the “Lesnoy”. In fact, the general was not the leader of the rebels — served, was only the

commander of artillery, subordinate to the chief of staff of the base. But he was a senior officer in the garrison and turned out to be a suitable figure for the Bolsheviks to mobilise the soldiers and workers of Petrograd against the Kronstadtsy, to declare the events a “mutiny” of deceived sailors-statists, who were being pushed into battle by an unkillable Tsarist general. All this “by the hour” is traced by domestic historians. The defence of Kronstadt was led by the RevCom headed by S.M. Petrchenko, who appointed the commander of the former captain E.N. Solovyanov and chief of staff lieutenant colonel B.A. Arkannikov. In all the memoirs of eyewitnesses surname Kozlovsky almost not mentioned.

However, for Trotsky, who led the siege of Kronstadt, it was no longer important that the general accepted Soviet power and volunteered for service in the Red Army. Moreover, his eldest son Nikolai, a student at the Artillery Academy, was a member of the Bolshevik Party and a deputy of the Petrosoviet (Petrograd Council). His sons Konstantin and Dmitry, cadets of the Fleet Komsostava School, took part in the battles with Yudenich’s troops. Younger children — son Paul and daughter Elizabeth — were still at school...

...The Kozlovsky family neighbored with Frenkels in “Lesnoy”, the children studied at the same school, and the arrest of the general’s wife Natalia Konstantinovna and four sons, and then the expulsion of the whole family to Solovki, deeply shook everyone who knew them. Anyway, it was known that under the pressure of superior forces, the surviving defenders of Kronstadt asked Finland to accept the garrison. Permission was granted, and some eight thousand fighting men, led by General Kozlovski, went behind the cordon. These men were saved, and the general himself lived in Finland until his death in 1940.

His family, which he could not help, had a hard time. Returning to Petrograd after several years on Solovki, they were exiled to Cherepovets. It is known that Kozlovsky’s wife lived to our years, she passed away in 1958. Three of his four sons graduated from the Polytechnic Institute, but they could only work in the exile. The eldest of them, as mentioned, joined the Party, but shot himself in 1927. *“I cannot tolerate injustice”*, — he wrote in a suicide note.

The Kozlovskys’ daughter Liza (whose home name was Lyulya) tried to evade expulsion, but her grandmother was afraid to shelter her in Lesnoye... Then Lyulya came to the Frenkels. Through the Finnish attaché they managed to establish contact with her father, and the girl decided to escape to

Finland. To help her in such an enterprise, few would dare to help, but Zakhar Grigorievich and his family dressed Lyulia in the coat of his youngest daughter Valentina, sewed in the lining of the remnants of family valuables, and Zakhar Grigorievich, at unprecedented risk, sent the girl across the border to her father. In his memoirs, which he recorded in the 1940–1950s, Zakhar Grigorievich, of course, did not write about this truly heroic episode [5]. There is only a note about it on page 307.

Thus, only daughter Liza met her father, who had a hard time in emigration. Eking out an occasional living, he, not without much hesitation, even wrote a letter to President Mannerheim asking for help. The reply was short and categorical: *“I have not got any work for a red general”*.

This is the bitter irony of fate: in his homeland Alexander Nikolayevich was considered an enemy and outlawed, while in Finland he remained a “red general”. Despite the cool attitude of the Finns to the Kronstadt people, he somehow managed to “hang on” to life. In the years before the war, he was the director of a boarding school for children of emigrants, managed to give Lisa a good education. Elizaveta married a Finnish officer Arvo Viitasen. She travelled with him many years later to Moscow, where she met for the last time her brother Pavel, a hydrologist and associate professor at the Togliatti Polytechnic Institute. According to the Finnish press, her son, the grandson of General A.N. Kozlovsky, lawyer Kai Viitasen, lives in Helsinki, among the many descendants of the Kronstadt people.

Elizabeth lived to that day (she died in 1995), when the events in Kronstadt were objectively assessed and the Kronstadt residents were rehabilitated by the Decree of the President of the Russian Federation. And, as we can see, the daughter of General A.N. Kozlovsky owed her life to the courage and nobility of the Frenkel family.

* * *

Apart from the dramatic evacuation of Lisa Kozlovskaya and the destruction of his brainchild in the Museum of the City, Zakhar Grigorievich’s long life had many more bitter and bitter minutes, hours, days... And sometimes months and years. Of pre-revolutionary events of this kind, one cannot but remember his first imprisonment for signing the Vyborg appeal to the “citizens of Russia”, with which some deputies of the dissolved First State Duma expressed their protest against the lawlessness of autocracy. Then, in correspondence, Leo Tolstoy supported Frenkel with his letter.

Since the 1930s Zakhar Grigorievich, generalising his experience as a clinician, hygienist, epidemiologist and demographer, worked a lot on the problems of ageing, which was embodied in his main monograph “Lengthening Life and Active Old Age” — this “bible” of social gerontology. Everything was not easy with it either. For the first time it saw the light in State Institute for Advanced Medical Education in 1940, and two institutes where the scientist worked, was nominated for the Stalin Prize. Zakhar Grigorievich did not receive this prize and commented on it as follows: *“Of course, I do not think for a minute that in Moscow in the prize commissions, where A.N. Bakh¹ presides, my book could have been a success...”*. (The same happened in 1950, when in connection with his 80th birthday Zakhar Grigorievich was presented to the Order of Lenin. The submission and the award list were approved by the Ministry of Health, but the scientist did not receive any award).

The next edition of the book was published in the State Institute for Advanced Medical Education in 1945, and in 1949 it was published by the Academy of Medical Sciences. These were years when it was not easy for scientists with wrong surnames to work, and even to exist, and the censors distorted the book because of the “new” view of the social causes affecting human health. Zakhar Grigorievich severely experienced this rude interference in his author’s position, in the following years he prepared a new expanded edition, but it was not possible to realise it. Moreover, in these years he was successively dismissed first from the 2nd Medical Institute, and in 1952 — from State Institute for Advanced Medical Education.

However, let us go back a little. The merciless thirties did not spare the already very young Z. Frenkel: in the summer of 1938 he was almost seventy, he was arrested and subjected to subtle tortures on Spalernaya Street. R.A. Babayants was immediately elected head of his chair at State Institute for Advanced Medical Education. However, even here fate kept Zakhar Grigorievich safe; Beriev’s “relaxation” came, and on the 9th of April 1939, on Easter, he was released. Ruben Ambarsumovich should be given credit: he immediately applied to the directorate with a report on his refusal to head the department and on Frenkel’s return to this position. And ahead was the war and

the blockade of Leningrad. How it survived the elderly scientist, here, in a nutshell, it is impossible to describe — it is necessary to read his own memories and blockade diary of his eldest daughter, a famous statistician and demographer Zinaida Zakharovna Shnitnikova-Lagarp [6]. Suffice it to say that severely suffering from dystrophy, the old scientist, as long as he could, under shelling and bombs, walked (!) from Lesnoy to State Institute for Advanced Medical Education to work...

For the sake of justice it is impossible not to say a few words about personal life of Zakhar Grigorievich, which added a lot of bitterness to his difficult existence and the life of his relatives. It happened that in 1918, almost 50-year-old father of three daughters in one of the official trips met a doctor Ekaterina Ilinichna Munvez, who a year later gave birth to his son Ilya. And since that time he actually lived on two families and took care of both.

The housemates of the first family knew everything and, as far as they could, treated the situation with understanding, as they soon became convinced that it was not just a hobby. But what it cost his wife Lyubov Karpovna ...Grandson of Zahar Grigorievich — Konstantin Savvich, with whom I was fortunate to be acquainted, in resentment for his grandmother, harshly condemned his grandfather in his notes, but summarised as follows: *“Perhaps it was that rare case when a man loves two women at the same time. He also had deepest affection for both his daughters and his son”*.

That is why Zakhar Grigorievich would have to endure two heavy blows: the first was the death of Lyubov Karpovna in 1948, and the second was the death of Ekaterina Ilinichna in 1962, and that was his “sorrowful cross”. Zakhar Grigorievich recalled with warmth how they together with Ekaterina Ilinichna in 1949–1951 years on their own project built their house in Pushkin. In 2008, when I was preparing a book about Frenkel, I had a chance to visit there and take advantage of the hospitality of Zakhar Grigorievich’s son Ilya Zakharovich, a veteran of the Great Patriotic War, and granddaughter Tatiana Ilinichna. In 1970, Z.G. Frenkel was buried in the Kazan cemetery in Pushkin.

Somehow rounding off the memories of the two great hygienists, I will note again that they did not really pity each other; in “Khlopins” years there was a difference in their social and scientific status, which was emphasised, as Frenkel puts it, by Khlopins’ “generalship” (for the Order of St. Vladimir in his time he received personal nobility), opposing views on the management of ward collectives,

¹ Zakhar’s maternal uncle, an academician, a Stalinist with whom Frenkel had an extremely unpleasant relationship for political reasons.

scientific disagreements about the place and role of social hygiene. Whether there was a whiff of anti-semitism on Khlopin's, it is difficult to say, but it is possible to assume. Not without reason, the maestro of hygiene in 1923 in MMA was at the centre of a scandal, when three Jewish students complained of harassment by the professor. The case reached the head of the Main Military Sanitary Department of the RSFSR Z.P. Soloviev, who entrusted the proceedings to the head of the MMA V.N. Tonkov, who received a lengthy and convincing letter of explanation from Khlopin. On a copy of the letter Khlopin made an inscription: "*12–13 Oct. 1923 I went to Moscow for explanations, which were recognised as quite exhaustive by Z.P. Soloviev*".

These notes of mine testify both to the considerable merits of two great Russian scientists, whose life paths personally, and in no small sense virtually, crossed, but also to the fact that, as it happens, "there are spots in the sun", which tells us a lot about the human nature and character of our two remarkable predecessors. And because of this, it seems to me, their portraits and the memory of them become fuller.

ADDITIONAL INFORMATION

The author read and approved the final version before publication.

Funding source. This study was not supported by any external sources of funding.

ДОПОЛНИТЕЛЬНАЯ ИНФОРМАЦИЯ

Автор прочитал и одобрил финальную версию перед публикацией.

Источник финансирования. Автор заявляет об отсутствии внешнего финансирования при проведении исследования.

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