

V.D. Shervinskiy – L.E. Golubinin Therapeutic School at the Imperial Moscow University and USSR Department of Internal Medicine: M.P. Konchalovsky's School

Vladimir I. Borodulin*, Aleksey V. Topolianskiy**

*The Federal Agency for Scientific Institutions' N. A. Semashko National Public Health Research Institute

12 Vorontsovo Pole St., building 1, Moscow 105064, Russia

**The Russian Ministry of Health's A.I. Evdokimov Moscow State Medical and Stomatological University

20 Delegatskaya St., building 1, Moscow 127473, Russia

Abstract. This article examines the history of the V.D. Shervinsky–L.E. Golubinin and M.P. Konchalovsky Scientific Schools at the medical faculty of Moscow University (1st Moscow Medical Institute). The authors see the Scientific School at the Clinic of Internal Diseases as a creative medical team having the following four features: the presence of a bright creative personality in the school's creator – a well-known doctor, teacher and researcher; a staff with scholars capable of going beyond the framework to independently and creatively develop their own ideas; a research program (new fields of research and conceptual or methodological approaches) launched by the founder of the school that unified the research team; constant daily communications between teachers and students in medical and research activities as a condition for the formation of a unified medical and scientific style, or "face" of the school. Konchalovsky's general therapeutic school was formed in the therapeutic hospital clinic of the 2nd Moscow State University (MSU), and became part of the Faculty Hospital of the 1st Moscow State University in the first half of the 20th century. Its founder was Konchalovsky – a student and a staff member of Shervinsky and Golubinin. This allows us to view his school as a subsidiary of the school of Shervinsky and Golubinin. A brief scientific biography of Konchalovsky and his students is provided. We will show that that the Shervinsky-Golubinin school was the main influence on the formation of therapeutic clinical practice in Moscow in the 1920s-1940s, not the school of G. A. Zakharyin and A.A. Ostroumov.

Keywords: history of medicine, internal medicine, clinical research school, therapy, M.P. Konchalovski

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About the authors

Vladimir I. Borodulin – Doctor of Medical Sciences, Professor, Chief Researcher at the Department of the History of Medicine, The Federal Agency for Scientific Institutions' N.A. Semashko National Public Health Research Institute (Moscow). E-mail: vborodul@mail.ru

Aleksey V. Topolianskiy – Doctor of Medical Sciences, Associate Professor, Department of Therapy, Clinical Pharmacology and Ambulance, The Russian Ministry of Health's A.I. Evdokimov Moscow State Medical and Stomatological University; Head of the Cardiology Department, City Clinical Hospital № 50 (Moscow). E-mail: avtop2004@mail.ru

1. The V.D. Shervinsky – L. E. Golubinin School of Therapy

The transition from the "Botkin" therapy used in Russia in the early 20th century to the Soviet clinical therapy created in the 1920s played an important role in establishing clinics of internal medicine in the USSR. This transition of scientific clinical knowledge and ideas was primarily provided by the leading scientific schools. In the first decades of the twentieth century, the leaders of internal medicine were V.P. Obraztsov and

F.G. Yanovsky (The University of St. Vladimir, Kiev); the students of S.P. Botkin, V.N. Sirotinin, M.V. Yanovsky and N.I. Chistovich (Military Medical Academy, St.-Petersburg, Russia); V.D. Shervinsky and L.E. Golubinin (Moscow University) [1].

The history of medicine and literature dealing with therapy usually considers the following to be the founders of medical therapeutic clinics in Russia: The Moscow University School of Internal Medicine at the beginning of the 20th century, whose fame rested on the schools of G.A. Zakharyin and A.A. Ostroumov, G.A. Zakharyin (1830-1997), the Faculty

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Director of the Internal Medicine Clinic (1862-1996); and Sergei Petrovich Botkin (Military medical Academy, St. Petersburg). One of his students, and then competitor and opponent, was Alexey Ostroumov (1844-1908), the Director of a hospital therapeutic clinic (1880-1901). At the end of the century, he was the true leader of clinical scientific thinking in Russia, developing general and functional approaches to the problems of medicine. He turned his clinic into one of the leading research and teaching centers for raising the qualifications of country doctors. The figures of G.A. Zakharyin and A.A. Ostroumov stood so high above their contemporaries, and above us, that there can be no question as to their historical role. However, with regards to the fundamental role of their schools, there may be some doubts. Given the abundant names of famous clinicians who studied with G.A. Zakharyin, our research material does not allow us to speak about the permanent influence of his scientific school on the development of internal diseases clinics.

Indeed, the first generation of the students of G.A. Zakharyin included such prominent representatives of Russian clinical medicine as G.N.Minh(1836-1896), M.P.Cherin(1838-1905), A.A. Ostroumov (1844-1908), and K.M. Pavlinov (1845-1933). However, none of them considered themselves to be a part of the "Zakharyin School", which was, of course, not yet formed when they were at the faculty of therapeutic clinic. Each

developed his own branch of research, different from G.A. Zakharyin. The second generation of students included such renowned professors and therapists as V.V. Chirkov (1846-1907), N.F. Golubov (1856-1943), P.M. Popov (1826-1920) and others, thus creating a new Zakharyin clinical school. However, one cannot say that they had a significant and lasting impact on the formation of clinics of internal medicine in the Soviet Union. Finally, although leaders of Russian clinical medicine, such as A.Y. Kozhevnikov (1836-1902), V.F. Snegirev (1847-1916 / 17), and N.F. Filatov (1847-1902), referred to themselves as students of G.A. Zakharyin, they were engaged in a research dealing with neurology, operative gynecology and pediatrics, which could not have been part of the original therapeutic school. A.A. Ostroumov also created an original and important therapeutic school, represented by well-known professors and therapists such as D.A. Burmin, V.A. Vorobiev, E.V. Gauthier-Dyufaye, N.A. Kabanov and A.P. Langovoy. However, between 1920 and 1930, none of them were members of the Moscow group of leading therapists.

Furthermore, the clinical school of V.D. Shervinsky and L.Y. Golubinin (Figure. 1), established at the beginning of the 20th century at Imperial Moscow University (IMU), became the founder of several other good schools in Moscow between 1920 and 1940. This largely determined

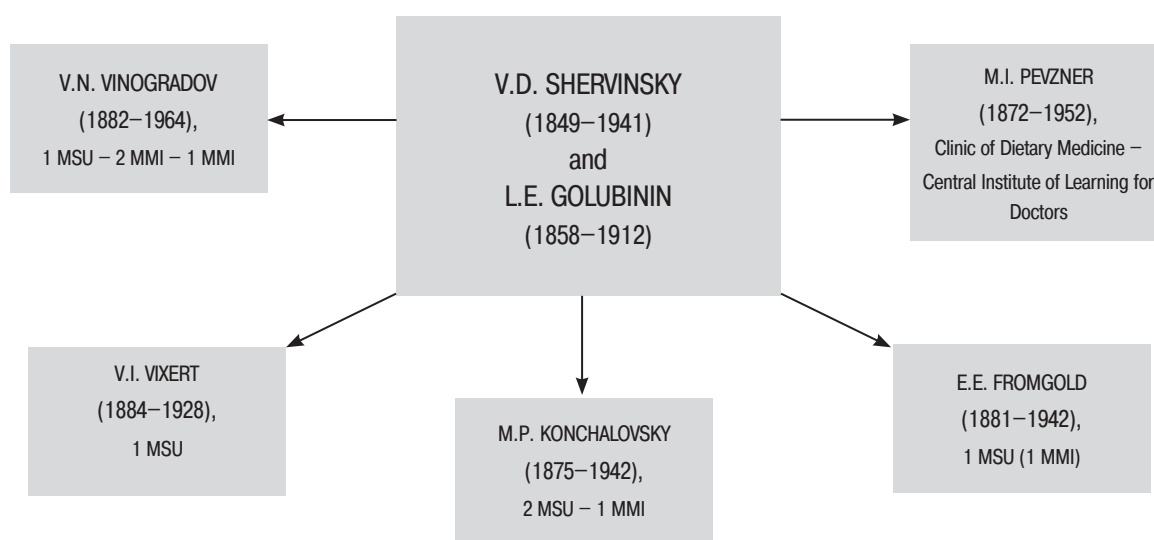


Fig. 1. The therapeutic school of V.D. Shervinsky and L.E. Golubinin.

the development of major research trends in domestic therapy. One could say that this Moscow school and its students, S.P. Botkin in Leningrad and its student V.P. Obratsova in Kiev and Odessa, played the most important role in the formation of internal medicine in the USSR. Numerous sources indicate that there is no reason to believe that the schools of V.D. Shervinsky and L.E. Golubinin were separate. Both Vasily Shervinsky (1899-1907) and his assistant and then a successor at the faculty of the IMU therapeutic clinic Leonid Golubinin Yefimovich (1907-1912), combined clinical-morphological and clinical-experimental areas and a broad range of therapeutic research topics. These topics dealt mainly with problems of endocrinology, gastroenterology, diet therapy, pulmonology, hematology, internal medicine serodiagnosis, and balneotherapy. This, in addition to the fact that they had the same students, suggest that this was a single clinical school, where a decisive role in the formulation of research belonged to V.D. Shervinsky, and that L.E. Golubinin was more involved in the medical education of students.

2. M.P. Konchalovsky – leading representative of the school of V.D. Shervinsky and L.E. Golubinin

Maxim Konchalovsky was an outstanding representative of the therapeutic school of V.D. Shervinsky and L.E. Golubinin – one of the leaders of therapy in Russia during the first half of the 20th century. On the eve of the Great Patriotic War, "The Soviet Medical Journal," noted: "In fact, M.P. Konchalovsky, G.F. Lang and N.D. Strazhesko make up a triumvirate, which currently heads the Soviet therapeutic clinic and leads Soviet therapy in the direction determined by the brilliant Russian clinician S.P. Botkin "[2, p. 313].

M.P. Konchalovsky was born in Odessa on October 14, 1875. He came from a working and educated family with broad cultural interests and connections, known for their vitality, industriousness, and civic consciousness [3, p. 6]. Influenced by family stories about his grandfather, a marine doctor, M.P. Konchalovsky joined the medical faculty of Moscow University in 1894. In his third year, his father involved him in a publication of M.N. Nikiforov's and a translation of a textbook edited by V.D. Shervinsky. It was

precisely from V.D. Shervinsky, and his assistant L.E. Golubinin, that he received his "first clinical lessons" [4, p. 18]. In 1899, having graduated with honors from Moscow University and received a Doctor's Diploma, M.P. Konchalovsky stayed in the therapeutic clinic as a faculty extern. He wrote about his teachers: "... when Shervinsky after Zakharyin, became chairman, I stayed at that clinic and since then all my life has been associated with V.D. and the warmest friendship. ... It is with particular gratitude that I remember the assistant Golubinin, who was responsible for all clinical work. I went with him on day and evening rounds, and learnt" [5]. The role V.D. Shervinsky played in helping M.P. Konchalovsky to become a researcher is highlighted by the fact that the young scientist published his first articles in the works of the Moscow therapeutic society, under the supervision of his teacher – the Chairman of society. After the first reports were published in the Society, Maxim Petrovich was appointed secretary and an editor, and in 1919 became a fellow (assistant) to the President. In celebration of the 35th anniversary of the medical practice of P.M. Konchalovsky, his teacher and friend, V.D. Shervinsky (who was over eighty) finished the opening speech with the words: "It is particularly touching when the student surpasses the teacher".

M.P. Konchalovsky, a private practice doctor and an attending physician since 1901, in 1904 became a full-time resident faculty member of the therapeutic clinic of Moscow University. In 1907, V.D. Shervinsky resigned but remained the honorary Director of the clinic. His close coworker, Professor L.E. Golubinin, was elected a head of the clinic, but the conditions in the clinic did not change. In 1911, M.P. Konchalovsky defended his thesis on "gastric achylia". Soon he was confirmed to the post of a Privatdocent. In 1918, M.P. Konchalovsky was elected a professor of the hospital therapeutic clinic at the Moscow Higher Courses for Women. The staff working for M.P. Konchalovsky in this Department included A.A. Bagdasarov, H.H. Vlados, M.S. Dultzin – in the future they would create the hematological school at the Central Institute of Blood Transfusion and Hematology. One of the most talented young students of M.P. Konchalovsky was V.G. Popov, who in the second half of the twentieth century became one of the most respected cardiologists in Moscow. From 1929 till the end of his life,

M.P. Konchalovsky directed his "dearly beloved", the faculty of the therapeutic clinic of Moscow University.¹ M.I. Wiechert got an outstanding staff from his previous clinic – E.M. Tareev, V.N. Smotrov, S.A. Pospelov, S.A. Gilyarevskiy and others became his students. During this time, he was also a consultant of the Institute of Labor Hygiene and Occupational Diseases Named After V.A. Obukhov (1927-1931), the scientific Director of the Institute of Blood Transfusion Named after A.A. Bogdanov (1928), headed the therapeutic clinic of the All-Union Institute of Experimental Medicine (1933), was the Chairman of the Central Resort Commission, and the Scientific Director of the Institute of Health Resorts [6]. In 1923, M.P. Konchalovsky became chairman of the Moscow Therapeutic Society (after V.D. Shervinsky). That year he and G.F. Lang founded a journal "Therapeutic Archives" and he remained its permanent editor until his death. In 1931, M.P. Konchalovsky became chairman of the Union of Therapeutic Societies.

Heir to the Shervinsky–Golubinin clinical school [7], M.P. Konchalovsky was a general physician dealing with all matters and sectors related to internal medicine; he was the author of 220 scientific publications [8, p. 153]. Since his activities were conducted when differentiations of internal medicine clinics were first being done, the articles devoted to M.P. Konchalovsky often refer to him as one of the founders of various medical specialties in our country (in particular, rheumatology, gastroenterology, balneology). We believe that in some cases there should be more rigorous use of the term "founder" (for example, "M.P. Konchalovsky was one of the founders of hematology in the USSR"). This type of language usage should be avoided. His scientific work had a clearly pronounced clinical-physiological approach and gradual evolution (in his own words) "from experimental physiology of the clinical physiology of a living person". Several of his works are devoted to so-called general, methodological issues of the clinic: teaching of clinical syndromes (specifically, in 1928 he described the hepato-splenic syndrome in cirrhosis of the liver), the theory of diagnosis, pre-disease states, preventive treatment, frequency of the disease, and a future ability to work.

According to Z.A. Cooper, M.P. Konchalovsky can be considered one of the founders of gastroenterology in Russia [9]. In 1909, at the First Congress of Russian Physicians, he made a report on "The clinical significance of new physiological data on gastric digestion". Based on the studies of I.P. Pavlov, they showed that the qualitative and quantitative indicators of gastric secretion are unstable and do not always indicate gastric lesions. Defended in 1911, the thesis also dealt with issues of gastroenterology: it demonstrated the causes of functional and organic achilios, traced the dynamics of gastric secretion, proved through relative standard figures. In 1912, M.P. Konchalovsky conducted a trial lecture to receive the degree of Privatdocent. The topic was on "The secretory neuroses of the stomach", and emphasized the role of the central nervous system in the regulation of secretory and motor activity of the stomach. He came to a conclusion: the treatment of diseases of the stomach should not be limited to the diet and drug therapy. It is necessary to consider the overall condition of the body, particularly the nervous system of the patient. The topic of pathology of the stomach was addressed in several published works, a report to the Moscow regional conference of General practitioners "Clinic peptic ulcer disease" (1933) and others. He widely promoted the concept of "peptic ulcer disease" as a common body ailment and not just round ulcers in the stomach (which resulted in limiting unnecessary surgical procedures for this pathology); introduced the concept of "ulcus-tumor" (inflammatory conglomerate around the ulcer penetrating into other organs, which does not mean that the ulcer becomes a cancer); it should be noted that currently, the conservative treatment of uncomplicated peptic ulcer disease is considered to be the only correct one.

Several of the works of M.P. Konchalovsky are devoted to the problems of blood disorders [10, 11]. With the help of Kh.Kh. Vlados and other students, M.P. Konchalovsky worked on functional development in hematology, similar to the one by G.F. Lang in Leningrad. In 1928, M.P. Konchalovsky described the hepato-splenic syndrome, saying that "the disease of the bone marrow and the whole reticuloendothelial system becomes apparent in many cirrhotic processes" (this is close to the modern understanding of hypersplenism). In 1910, during a demonstration

¹ Henceforth – The 1st MMI, Moscow Medical Academy, now the First Moscow State Medical University. I.M. Sechenov.

of a one year-old patient with hemorrhagic diathesis, he drew attention to a symptom, known as "the symptom of the loom" (for a long time this feature appeared in the Russian literature as the Konchalovsky–Tiller–Leede symptom, named after Konchalovsky and German doctors Th. Rumpel and C. Leede, who described this trait independently of each other in 1909 and 1911). Working in collaboration with M.S. Dultsin (1936), he was the first in the country to clinically describe the image of late stage chlorosis and pointed out the role of endocrine changes and family history in the origins of the disease, tracing the emergence of the first symptoms of chlorosis to an early age. M.P. Konchalovsky expressed his views on the problems of blood disorders in a release of clinical lectures (1937) about the problems of anemic conditions, leukemia, other systemic blood diseases, and hemorrhagic diathesis.

At the request of M.P. Konchalovsky, the Institute of Blood Transfusion was reorganized into the Institute of Hematology and Blood Transfusion. It was upon his initiative that a new clinical department was organized at the institute – The Therapeutic (and later hemo-therapeutic) Clinic. He formulated the basic provisions for the indications of blood treatment (an individual assessment of indications requiring blood transfusion in each case and the need to consider the reactions of the organism); its great scientific authority contributed to the use of blood transfusion methods in general medical practice. [12] However, it should be noted that the crucial role in the development of hematology in the Soviet Union was played not by the functional school of hematology of M.P. Konchalovsky and G.F. Lang, but by the clinical-morphological school of A.N. Kryukov and I.A. Kassirsky.

In the field of cardiovascular disease, M.P. Konchalovsky became one of the pioneers in the use of strophanthin in Russian clinical practice, realizing the impact of this drug on blood circulation, the heart, and diuresis. The first issues of his clinical lectures on diseases of the cardiovascular system were published in 1935, and the article "The Clinic for hypertensive illnesses" was published in 1937. He stressed the importance of constitutional factors and described the personality traits that contribute to the disease: high vital activity and constant inner restlessness,

excitability without external manifestations of excessive emotion (these features are inherent in M.P. Konchalovsky himself, who suffered from hypertension in his later years). He correctly believed that the level of arterial pressure was a dynamic indicator and warned of the dangers of the hypnotic effects of blood pressure on a doctor's thinking, because the numbers "on their own, without clinic examination, cannot indicate health or disease" (unfortunately, modern doctors often forget about it). He noted that sometimes patients lose functionality when arterial pressure goes down, whereas at higher level, but ones usual for the patient, the level of functionality is maintained.

Under the leadership of M.P. Konchalovsky, the 2nd Hospital Therapeutic Clinic of Moscow State University was one of the first in the country to conduct electrocardiographic follow-ups for myocardial infarction. He was interested in clinical casuistry, examining the "very nature of the experiment created", detailing in 1910 the clinical image of an open blood (botallova) duct and stenosis of the right atrioventricular opening (compensation mechanism for congenital heart disease, about which he published an article in 1916 in a volume dedicated in honor of V.D. Shervinsky). But Konchalovsky was more attracted by the problems of rheumatism, which in 1920 were considered to be one of the primary causes of disability and death, comparable in social significance to tuberculosis.

M.P. Konchalovsky was one of the organizers of the scientific development of prevention and treatment of rheumatism in Russia. He was instrumental in organizing rheumatologic therapy centers in the departments of higher medical education and creation of the first rheumatologic surgeries at clinics for children and adults. [13] In 1928 he became chairman of the All-Union Antirheumatic Committee. In 1934 he was elected President of the International Congress Against Rheumatism held in Moscow in the prewar years. He was twice elected vice-president of the International Anti-rheumatic League. M.P. Konchalovsky presented reports on the problem of rheumatism at the 1931 meeting of the 11th All-Union Congress of Physicians ("Rheumatism: etiology, pathogenesis and significance of the environment"), in 1932, at the International Congress of Rheumatology in Paris

("The initial symptoms chronic rheumatism"), in 1933 at the All-Union conference on rheumatism in Moscow ("Rheumatism and Allergy"). In 1932 he published the paper "On the early signs of chronic rheumatism", and in 1938 – "The main issues of rheumatism in clinics". He believed that the concept of "acute rheumatism", prevalent at that time, was arbitrary. He stressed that the evolution of the disease, prone to recur with the development of visceral lesions, allows one to "understand rheumatic disease as not acute but chronic". He explained the theory of the pathogenesis of allergic rheumatism, pointing to the cyclical nature of its clinical course and developed a classification of the disease. Therefore, there is a good reason for crediting him as being the founder of rheumatology in the USSR.

Regarding questions concerning pulmonary pathology, M.P. Konchalovsky was one of the first physicians to work on the avant-garde surgical topic "On pulmonary suppuration and the indications for their surgical treatment" (in his lectures, he tried to express this theme together with S.I. Spasokukotsky). He identified and described four groups of pulmonary suppuration: post pneumonic, tuberculosis, embolic, and abscesses formed upon introduction of a foreign body. He noted that suppuration of the lungs may be limited and diffuse, emphasizing the role of the organism's reactivity in the course of the disease. In the treatise "Lung Cancer" (1934), he analyzed 72 clinical cases and estimated the prevalence of this then still rare disease. He analyzed its etiology (highlighted the importance of smoking or inhaling the soot car prior to chronic inflammation of the lungs), described clinical symptoms, the first to provide classification of diseases with differentiation of its various forms, and described possible healing and preventive methods.

Of course, the scientific interests of M.P. Konchalovsky were not limited to these topics – among his works are studies on infectious diseases, diseases of the endocrine glands, balneology, health resort therapy, professional pathology, and the history of medicine. The most voluminous of his works include, "Clinical lectures" (vol. 1-4, 1935-1937), "Clinic of internal diseases" (General – 1933, Special – 1934) and "Textbook of internal medicine" (4th ed., 1941), reprinted several times.

What characteristics unite and highlight the creative legacy of M.P. Konchalovsky? First, a consistent functional (physiological) approach to the problems of pathology. It is no coincidence that his thesis was devoted to gastric achylia (1911), his keynote speech at the 8th All-Union Congress of Therapists (1925) was called "Functional diagnostics of the liver", and his publications even include a special study, "The Impact of the work of Pavlov on the modern trend in internal disease clinics" (1936). Secondly, the preventive focus of many of his works. Thirdly, a dispute still relevant today, is whether the disease is nosological in form (unit) or a reaction syndrome of the body, including characteristic combinations of damaged organs and systems, and if there is a need to use this as a basis of classification and consider the main direction of further development of the clinic? M.P. Konchalovsky was the leaders of those who supported syndrome approach. Finally, we should mention an important characteristic feature of M.P. Konchalovsky: he always distinguished himself with a high level of social activity. He was never indifferent to anyone and worked "feverishly", being a type of person with natural leadership and organizational skills. According to the recollections of E.M. Timofeev, this was a man, "who was always busy, accomplishing much, while at the same time always having an unhurried particularly calm outward appearance. He was exceptionally accessible and attentive to the words of others, so that both patients and doctors relied on him. He demanded of himself and the staff, but did not hinder their initiatives, believing in the power of training through clinical groups familiar with the entire medical world and formulating of clinical work in various institutions, calmly strengthening Soviet medicine and Soviet science..." [14].

In December 1941, M.P. Konchalovsky was forced to be evacuated from the besieged Moscow to Kuibyshev, where he worked as a hospital consultant. He was not able to adapt to changes in the creative climate and normal conditions very well, resulting in increased arterial hypertension. In 1942 he returned to Moscow and began work in the clinic (lectures, rounds and patient consultations); however, his health remained poor. He died November 29, 1942 and was buried at the Novodevichy cemetery.

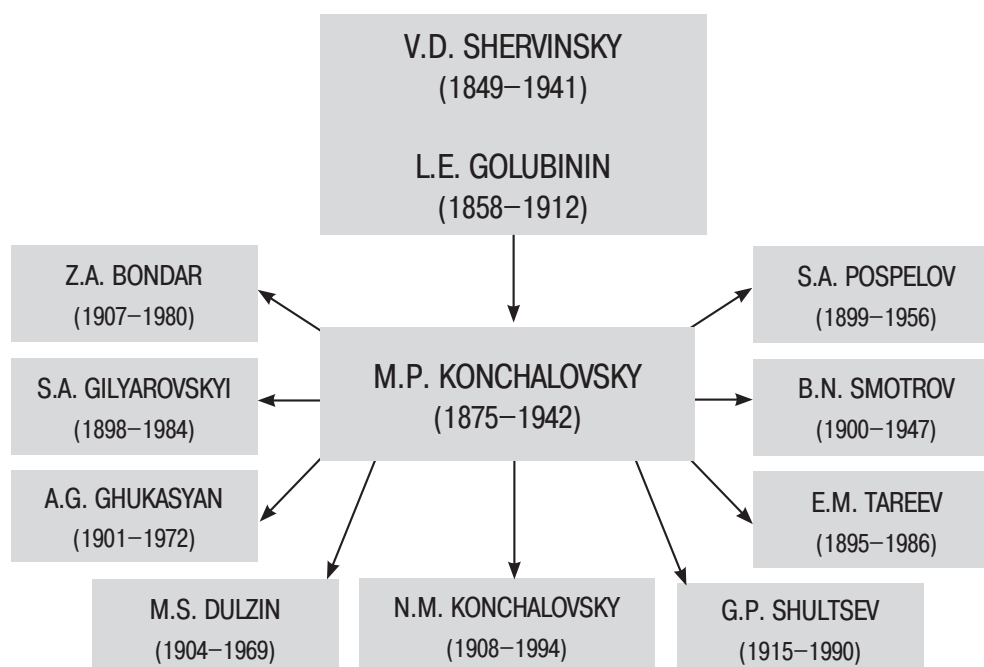


Fig. 2. Therapeutic School of M. P. Konchalovsky.

3. Clinical school of M.P. Konchalovsky

The creative tradition of M.P. Konchalovsky is typified by a comprehensive interest in the scientific matters of therapeutic clinics: from diseases of the stomach to the methodology and history of clinical medicine, from infectious diseases to endocrinopathy, from balneology to gene therapy, as reflected in the writings of his students. In this study we review material about the school of M.P. Konchalovsky, using methodological and methodic criteria selected by us for clinical research schools [15]. The staff of the scientific clinical school of M.P. Konchalovsky (basic students) is shown in Figure 2.

A corresponding member of the USSR Academy of Medical Sciences and a laureate winner of the M.P. Konchalovsky AMS prize (1975), Zinaida Bondar graduated from the 1st MMI in 1939 and then entered graduate school at the Department of Therapy. In 1941, under the direction of M.P. Konchalovsky, she defended her Master's thesis "On the regulation of gastric juice acidity". On the second day of the war, she went to the front as the resident physician of a mobile field hospital. After the war, she worked under the guidance of V.N. Vinogradova, and then for Timofeev E.M. Starting as an assistant,

she later became a Professor; in 1964-1977 she headed the faculty of the Department of therapy at the 1st MMI. She was a Deputy Editor of the journal "Therapeutic archives", Deputy Chairman of the All-Union Scientific Society of Physicians. Becoming one of the therapeutic elites of the country seems to have contributed to a successful party career – in 1948-1956 Z.A. Bondar was an instructor and the deputy head of the health sector of the CPSU Central Committee. Most of the scientific works of Z.A. Bondar were devoted to the pathology of the liver. She also worked on issues of pathology of the pancreas, functional diagnostics in gastroenterology (radioisotope diagnosis and liver biopsy, the study of the spectrum of enzymes and isozymes in liver tissue and blood serum, the secretory function of the pancreas), and clinical differential diagnosis of jaundice [16]. Along with V.A. Smotrov and A.G. Ghukasyan, Z.A. Bondar was a representative of a type of gastroenterological research of the school of M.P. Konchalovsky.

The cardiologic research of this school was further developed by Sergey Gilyarevsky. In the faculty therapeutic clinic of the 1st Moscow State University he went from extern doctor to Professor of the Department. In 1949 S.A. Gilyarevsky be-

came Professor at the Department of E.M. Tareev. S.A. Gilyarevskiy was the author of over 100 scientific works (including six monographs) devoted to cardiology and rheumatology (pathogenesis, diagnosis, clinics and treatment of rheumatic fever and endocarditis), methodological problems of diagnosis, and general medical issues.

Aram G. Ghukasyan was a corresponding member of the USSR Academy of Medical Sciences, and a State Prize laureate winner. He participated in establishing Soviet power in Georgia and Armenia. Between 1926 and 1931, he was an attending physician, graduate student and assistant of the Therapeutic Clinic faculty. According to M.P. Konchalovsky, A.G. Ghukasyan "provided extensive material on how stomach functions are influenced by various diseases of the organs and systems." Subsequently, he graduated from the Institute of Red Professors, taught a course on the history of the party and Marxist-Leninist philosophy at the 1st MMI, and held chairs at the Faculty of the Sanitary Hygienic Therapy (1935-1963) and at the 2nd Medical Faculty (1963-1972) of the 1st MMI.

He also worked as the head of the Main Directorate of Medical Schools and was a member of its Board (1950-1953), and was the chief physician of the 4th Main Directorate (1961-1968) of the USSR Ministry of Health [17, 18]. He led and directed its rich and diverse scientific heritage – from issues of gastroenterology to the history of medicine. On matters of scientific research in gastroenterology (functional pathology of the stomach, colon), A.G. Ghukasyan was a direct successor of M.P. Konchalovsky. However, with regards to his works on the history of medicine, there were obvious signs of party opportunism and factual inaccuracy.

Mark Solomonovich Dultsin was a corresponding member of the USSR Academy of Medical Sciences and a laureate winner of the USSR State Prize (1943). He began his medical and scientific career at the Department of Hospital Therapy of the 2nd MMI under M.P. Konchalovsky, and in 1929 under the guidance of V.F. Zelenin. Later (1943), M.S. Dultsin became the "right hand" man and then successor (1953) of Kh.Kh. Vlados at the hematology clinic of the Central Institute of Hematology and Blood Transfusion, one of the country's leading researchers in leukemia, anemia and

other problems in clinical hematology. It was typical for the clinics of internal diseases in between 1920 and 1940 to have functional management of Soviet hematology in Moscow be directed by M.P. Konchalovsky, Kh.Kh. Vlados and M.S. Dultsin.

Professor Nina Maximovna Konchalovskaya should also be viewed as a representative of the school of M.P. Konchalovsky: in 1932, under the guidance of her father, she went from attending physician to assistant faculty member of the department of therapy at the 1st MMI. Between 1960 and 1976, she headed the therapeutic clinic of the Research Institute of Hygiene and Occupational Diseases. Her research focused on problems concerning diseases of the liver, blood (acute hemolysis, hemolytic jaundice, hemoglobinuria, etc.), and occupational diseases (including lung – pneumoconiosis, silicosis, silicotuberculosis etc.) [19].

Upon finishing his studies at the medical faculty of the 1st Moscow State University (1923), S.A. Pospelov, a student of M.I. Wiechert and M.P. Konchalovsky, worked at the faculty of the Department of Therapy as an attending physician and an assistant lecturer. When (in 1933) the Moscow clinic of the All-Union Institute of Experimental Medicine (AIEM) was opened, and a therapeutic clinic (initially as "branches of the AIEM" based at the Department of the Therapeutic Clinic of the 1st MMI, and after 1937 as a separate clinic in building 3 of the former Semashko Hospital) was established, they were headed by M.P. Konchalovsky. S.A. Pospelov went to this clinic, which had gastroenterology and then infectious departments, and eventually succeeded his teacher as its head [5]. During the Great Patriotic war, Professor S.A. Pospelov headed the Institute of Malaria and Tropical Diseases in Dushanbe (November 1941); he then became the head therapist of Bryansk (1942-1943), the 2nd Baltic (1943-1945) and the 1st Ukrainian (1945) fronts. After the war, S.A. Pospelov became Chief Physician of the Central Group Forces. Between 1946 and 1949, he was the Deputy Chief Physician. In 1950, he became the Chief Physician of the Soviet Army (succeeded by M.S. Vovsi).

The first works of S.A. Pospelov published in the 1920s, were devoted to the pathology of metabolism (hyper – and hypoglycemia, azotemia, cholesterol exchange, etc.). In 1939, he defended

School of M.P. Konchalovsky: main focus of activities

Representative of the School of M. P. Konchalovsky	Main focus of scientific activities	Primary publication of works
Bondar Zinaida Adamova (1907-1980)	Problems of clinics and differential diagnosis of jaundice, liver disease, diseases of the pancreas	"Obstructive jaundice" (1956), "Jaundice" (1965.), "Clinical lectures on diseases of the liver" (1967), "Clinical Hepatology" (1970), "Lectures on clinical gastroenterology" (1973)
Gilyarevsky Sergei Aleksandrovich (1898-1984)	Questions concerning cardio rheumatology (pathogenesis, diagnosis, clinical treatment of rheumatic fever and endocarditis), methodological problems of diagnosis, general medical questions	"Rheumatic endocarditis" (1946), "Endocarditis" (1950), "On diagnosis" (1953), "Propaedeutics of internal diseases" (1960, 1965)
Ghukasyan Aram Grigorevich (1901-1972)	Problems of gastroenterology (diseases of the stomach, liver, chronic constipation), chronic alcohol intoxication, history of medicine	"G.A. Zakharyin (1829-1927)" (1948), "A.A. Ostroumov and his clinical and theoretical views" (1950), "Maxim Petrovich Konchalovsky and his clinical and theoretical views" (1956), "Constipation and its treatment" (1962), "Diseases of the intestines" (1964), "Chronic alcoholism and the condition of the internal organs" (1973), "The evolution of Russian therapeutic thoughts" (1973).
Dultsin Mark Solomonovich (1904-1969)	Issues of clinical hematology (leukemia, anemia, etc.), transfusion	"Hemotherapy in the clinic of internal diseases" (1952, et al. coauthored with A.A. Bagdasarov), "Leukemia" (1965, et al. coauthored with I.A. Kassirskiy and M. O. Rauschenbach)
Konchalovskaya Nina Maksimovna (1908-1994)	Diseases of the liver, blood, professional pathology	"Occupational diseases" (1973, co-authored), "Toxic (work related) lesions of the liver" (1986)
Pospelov Semen Alexeyevich (1899-1956)	Pathology of metabolism infectious diseases, gastroenterology problems	"The main issues of clinical dysentery (with M.P. Konchalovsky), "Therapy archives", 1941; "Problems of influenza in light of recent data" (with M.P. Konchalovsky, "Therapeutic archives", 1941)
Smotrov Vladimir Nikolaevich (1900-1947)	Pathology of the colon, stomach ulcer, problems of clinical vitaminology, history of medicine	"Chronic colitis (1934), "Peptic ulcer disease and its treatment" (1944), "Vitamins and their clinical applications" (1946), "Textbook of internal diseases" (1946, et al.), "Mudrov. 1776-1831" (1947)
Tareev Eugeny Mikhaylovich (1895-1986)	Clinical nephrology, liver disease, systemic connective tissue diseases, infectious disease, hypertension, drug disease	"Bright's Disease" (1929), "Kidney Disease" (1936), "Hypertension" (1948), "Nephritis" (1958), "Connective tissue" (1965, co-authored), "Infectious hepatitis" (1970, co-authored), "Fundamentals of Nephrology (volumes 1-2, 1972; ed. by E.M. Tareev)
Shultsev Georgy Pavlovch (1915-1990)	Kidney disease, adrenal problems cardiovascular disease, gastroenterology, issues of military-field therapy	"Diseases of the kidneys (nephritis)" (1952, co-authored), "M.P. Konchalovsky" (1973)

his doctoral thesis on "Hypoglycemia", showing himself a specialist in the field of laboratory-instrumental diagnostics. In the "Textbook of internal diseases", published in 1939 under the editorship of M.P. Konchalovsky, S.A. Pospelov wrote chapters on "Metabolic Disease" and "Diseases of the Endocrine Glands". The second and third subjects of his scientific papers attest to the absolute influence of M.P. Konchalovsky. These include problems of gastrointestinal diseases and, specifically, gastritis, and issues of infectious disease [20].

Vladimir Nikolaevich Smotrov, like S.A. Pospelov, was a student of M.I. Wiechert and M.P. Konchalovsky. He studied the pathogenesis of digestive tract diseases focusing on the teachings of I.P. Pavlov and I.P. Razenkov. Between 1923 and 1941, he went from intern to Professor at the Department of Therapy at the 1st MMI; between 1941 and 1942 he headed the United Department of Therapy of Moscow's medical institutions, and in 1944-1947 the Department of Propaedeutics of internal diseases of the 1st MMI. His main works are devoted to pathology of the intestines, as well as to the history of Russian medicine. M.P. Konchalovsky appreciated his intelligence and literary taste. It is no coincidence that the textbook on internal diseases (1946) was written by M.P. Konchalovsky in collaboration with V. N. Smotrov and E.M. Tareev.

It is widely recognized that the most prominent representative of this school was Evgeny Mikhailovich Tareev, a student of V.E. Baptist and M.I. Wiechert, and then a favorite student of M.P. Konchalovsky. In 1935, based on the totality of his works, he was awarded the degree of Doctor of Medical Sciences and in 1936 – the title of Professor. An academician of the Academy of Medical Sciences of the USSR (1948), a laureate winner of the Stalin, Lenin and State Prize, Hero of Socialist Labor, E.M. Tareev, like M.P. Konchalovsky, was a general physician and creator of the "subsidiary" – the largest and most influential therapeutic school in the Soviet Union in the second half of the 20th century. E.M. Tareev was the author of important research in the field of infectious diseases and hepatology, systemic diseases of connective tissue, arterial hypertension, and septic endocarditis – the so-called drug disease, etc. However, throughout his career nephrology was always the center of his focus.

He was one of the organizers (1969) and the permanent chairman of the All-Union Scientific Society of Nephrologists and played an integrating role for Nephrology in the modern therapeutic clinic, suggesting a classification of kidney disease, describing a rare form of kidney failure, nephritic syndrome, and stages of renal failure, renal amyloidosis, and others [21].

If the research subject of E.M. Tareev was largely connected to the works and ideas of M.I. Wiechert, its clinical worldview unquestionably developed under the influence of M.P. Konchalovsky, who in the era of "organ pathology" worked on "systemic diseases" and a syndrome approach in clinical medicine. E.M. Tareev developed these studies in clinical physiological and social (preventive and epidemiological) aspects. M.P. Konchalovsky noted that E.M. Tareev had the ability to gather young doctors around him and interest them in scientific work. The Nephrology Research School of E.M. Tareev (V.V. Sura, N.A. Mukhin, I.E. Tareev et al.) maintained its leading position in Russian Nephrology from the beginning of the 19th to end of 20th century. The rheumatological work of his clinics continued under O.M. Vinogradov, V.A. Nasonova, etc; cardiology continued under A.A. Demin, A.V. Sumarokov, A.A. Mikhailov, V.S. Moses; research on tropical diseases continued under N.N. Ozeretskoy.

Professor G.P. Shultsev devoted his scientific work to the problems of nephrology and military-field therapy, as well as issues of adrenal diseases, cardiovascular disease, and gastroenterology. For almost 20 years, he headed the department of therapy of the № 4 Central Institute for Advanced Training of Physicians at the Central Clinical Hospital of the № 1 Ministry of Railways [22].

In his own words, he "had the good fortune of being a student of Maxim Petrovich in the twilight years of his life (1938-1941) and before that (in 1935-1938) to listen to his lectures at the clinic". [23] The variously themed works of G.P. Shultseva include a small number of articles and books devoted his teacher.

The main scientific activities of the School of M.P. Konchalovsky are presented in the table.

Academician of the Academy of Medical Sciences of the USSR, twice winner of the State Prize (1946, 1952), Andrey Arkadevich Bagdasarov began his medical career in the Department of

Hospital Therapy of the 2nd MMI – initially under the guidance of M.P. Konchalovsky and then under V.F. Zelenin (who he also called his teacher). In 1932-1961, A.A. Bagdasarov worked as the Director of the Central Research Institute of Hematology and Blood Transfusion. He dealt with problems of blood donation, serology, long term preservation of blood, blood formation; studied oncological diseases, hypertension and radiation sickness. Under his guidance, polyglukin was created – the first blood substitute in Russia [24]. He was one of the founders of the blood service in Russia, creating stations and offices for blood transfusion, The Institute of Hematology and Blood Transfusion, and organizing donor movements [25]. He founded the specialized journal "Problems of Hematology and Blood Transfusion." At this same time, he was also a professor at the Department of V.F. Zelenin in the 2nd MMI, and head of the Department of Hospital Pediatric Therapy. His originality, creativity and organizational abilities forces us to reconsider our previous belief that we could not include A.A. Bagdasarov as a part of the school of M.P. Konchalovsky, or of the School of V.F. Zelenin.

In the early 1920s, M.P. Konchalovsky invited Kh.Kh. Vlado to work as an assistant at the Hospital Therapeutic Clinic of the Medical Faculty of the 2nd Moscow State University (2nd MMI). He would work as a qualified hematologist since he was already an established physician when he arrived at the clinic. V.G. Popov, emphasizing his piety towards M.P. Konchalovsky as though towards his first teacher, emphasized that he considers himself to be a student of D.D. Pletnev, which clearly speaks of the main direction of his scientific activity. N.A. Ratner studied under the schools of M.P. Konchalovsky, and (briefly) under G.F. Lang, but her main works were on the

issues of pathogenesis, clinics, and the treatment of renal hypertension and related illnesses. This is proof of the direct influence of E.M. Tareev and A.L. Myasnikov. The same is true of A.M. Kasatkina, E.A. Cost and K.I. Shirokov. All of these "solid coworkers" (in his own words) appear in the literature as representatives of the school of M. P. Konchalovsky [26] and, of course, had some influence on the outstanding clinician. However, a scholarly analysis of their biographies and works, and through a rigorous approach to the concept of "scientific school", we do not have sufficient grounds to include them as part of the clinical school of M.P. Konchalovsky.

Unlike the school of G.F. Langa, where all notable students were easily recognized by their characteristic scholarly "handwriting" and by the formulation of their research, methodological approach, and the way they process data, the school of M.P. Konchalovsky was characterized by a much greater "degree of freedom" and topics of research, research methods, methods of clinical thinking, and by the fact that many of its members had no apparent general similarities. For example, two biographers of M.P. Konchalovsky – gastroenterologist and medical historian A.G. Gukasyan (relies more on ideology and political expediency than on scientific facts) and nephrologist and expert on military-field therapy G.P. Schulz (scrupulous in all matters concerning scientific evidence, methodological aspects of the question, and very cautious drawing conclusions) – hardly fit into the concept of "unity." This of course does not change the general conclusion: the most important service of M.P. Konchalovsky to The National Department of Internal Medicine was that he created one of the largest research therapeutic schools in the USSR.

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About the authors

Vladimir Iosifovich Borodulin – Doctor of Medical Sciences, Professor, Chief Researcher at the Department of the History of Medicine, The Federal Agency for Scientific Institutions' N.A. Semashko National Public Health Research Institute, Moscow (Russia).

Aleksey Viktorovich Topolyanskiy – Doctor of Medical Sciences, Associate Professor, Department of Therapy, Clinical Pharmacology and Ambulance, The Russian Ministry of Health's A.I. Evdokimov Moscow State Medical and Stomatological University; Head of the Cardiology Department, City Clinical Hospital № 50, Moscow (Russia).