MEMORIAL ARTICLE

Professor Witold Eugeniusz Orłowski, a founder of the Polish school of internal medicine: a sesquicentennial remembrance

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Introduction The year 2024 marks the 150th anniversary of the birth of Witold Eugeniusz Orłowski (FIGURES 1 and 2). He was one of the most eminent Polish internists and a founder the Polish school of internal medicine.

Professor Orłowski's life coincided with beginnings of internal medicine. At that time, the internal medicine was much more than a new medical specialty. It was the first branch of medicine based on understanding pathophysiology of the disorders in adults, and a specialty that included a complex set of data obtained mostly through laboratory, functional, and imagining techniques. This tendency has gradually become a basic rule of modern medicine, but in the days of Professor Orłowski it was a new approach to diagnostics and therapy.¹⁻³

An outline of the life story Witold E. Orłowski was born on January 24, 1874 in Norwidpole, an estate in the Province of Minsk, in the part of partitioned Poland occupied by the Russian Empire. He was a son of Franciszek Orłowski, an administrator of a nearby Polish estate, Tukally Milcz, and his wife Paulina Orłowska née Onichimowska. The Orłowskis moved to Vilna (now Vilnius) in 1882, where Witold graduated from a high school with a gold medal for the best student in 1891. In the same year, he entered the Military Academy of Medicine in Petersburg (now the SM Kirov Military Medical Academy). University education at the Academy was the only possibility to study medicine for Witold and his 2 brothers, Zenon Orłowski (later a famous pulmonologist and physiatrist) and Mieczysław Orłowski (later a dermatologist in the Polish Army), as the school offered governmental scholarship to cover the tuition and boarding in the city. Witold E. Orłowski was one of the best students in the history of the Academy. He graduated in November 1896 with honors. He was also distinguished with the Ivanov's Award for the best graduate. After graduation, Witold E. Orłowski became an unpaid assistant at the University Hospital of Internal Medicine in Petersburg headed successively by Professors Fyodor Ignatevitch Pasternackiy (1845–1902), Alexandr Pavlovitch Favitskii (1862–1924), and Vasiliy Nikolayevitch Sirotinin (1855–1934).

He received additional postgraduate training at the laboratory of Sergey Petrovich Botkin (1832–1889) (bacteriology) and Ivan Petrovich Pavlov (1849–1936) (physiology of the circulatory system). On March 12, 1900, Witold E. Orłowski obtained his PhD upon presentation of a thesis *On bactericidal properties of uric acid-soluble*

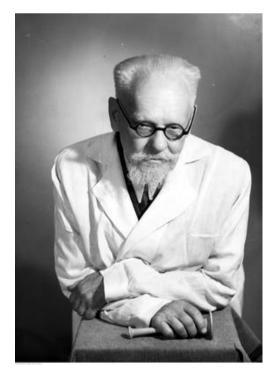


FIGURE 1 Witold E. Orlowski (photo: Edward Hartwig).
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FIGURE 2 Witold E. Orłowski (about 1925). Reprinted from *Polskie Archiwum Medycyny Wewnętrznej* 1936 (a special issue dedicated to Professor Orłowski)

urotropine and its use in the management of urinary bladder infections. On July 27, 1903, he obtained so-called veniam legendi in internal medicine (a position equivalent to that of an associate professor). In the summer, he practiced in the health resort Yessentuki, a city located in the shadow of Mount Elbrus at the base of the Caucasus Mountains. Earlier, still a student, he managed a medical laboratory in this famous spa. On March 15, 1907, he won a competition for a position of an assistant professor at the Kazan University. He became a head of the internal medicine department in 1912, and 1 year later he was nominated to a position of a full professor. In 1918, he moved to Tomsk (West Siberia), and later to Perm, a city located at the foot of the Ural mountains, and Irkutsk in Siberia. He organized a Red Cross Hospital and lectured at the university there. While living in Irkutsk, Orłowski received an invitation to become a head of an internal medicine department at the oldest Polish university in Kraków, his home country, again independent after over a century. He then returned to Poland and devoted himself to teaching, treating patients, and conducting medical research. In 1925, he was nominated a head of an internal medicine department in Warsaw. He developed this department and transformed it into an influential medical institution with numerous divisions focused on subspecialties of internal medicine.⁵ During the World War II, when Nazi closed Polish educational institutions, Orłowski was involved in clandestine medical education. 6 After the Warsaw uprising, he was a head of the hospitals in Brwinów and Grodzisk Mazowiecki. When the war ended, he returned (July 15, 1945) to the heavily destroyed building of the university hospital and started treating patients. In December 1945, his efforts contributed to medical students resuming their education at the Warsaw University. 7 New authorities forced Orłowski to step down from his university position on January 1, 1948. He became a head of an internal medicine ward in a municipal hospital in Warsaw (1948-1957), and later worked at the Institute for Postgraduate Education (until 1960) and at the Regional Warsaw Hospital (1960–1961), where he continued his research activities. Witold E. Orłowski retired on January 1, 1961, but to the last days of his life he was involved in editorial works. He died in Warsaw on December 2, 1966.

The Polish school of internal medicine For about 4 decades Witold E. Orłowski worked as a chairman of internal medicine departments, including those in Kraków (vacated by Walery Jaworski)⁸ and Warsaw (vacated by Kazimierz Rzętkowski and Antoni W. Gluziński).⁹⁻¹¹ The departments were leading university centers of clinical medicine, famous for research achievements, and also outstanding university teaching hospitals.

Witold E. Orłowski taught many generations of internists modern approaches to solving clinical problems. His approach to patients has been passed down from generation to generation, although younger internists often forget that the process of shaping internal medicine in Poland was initiated by Witold E. Orłowski. His role in the creation of modern Polish medicine during the difficult years of regaining and building Poland's independence is not always remembered.

Witold E. Orłowski had a special talent for selecting coworkers and offering them individual pathways of research and clinical development. A list of his students is very long. Some of the most outstanding internists from the Orłowski's school are Dymitr Aleksandrow (1909-1993, cardiology), Andrzej P. Biernacki (1903-1963, hematology, balneology), Ryszard S. Brzozowski (1925-2019, hepatology, metabolic medicine), Seweryn Cytronberg (1892-1957, gastroenterology), Antoni Dmochowski (1896-1983, physiological chemistry), Antoni Fidler (1901-1967, internal medicine), Walenty Hartwig (1910-1991, endocrinology), Józef Hornowski (1874-1923, pathology), Wiwa E. Jaroszewicz (1905-1979, infectious diseases), Eugeniusz Kodejszko (1909–1967, diabetology), Wacław Markert (1898-1992, pulmonology, occupational medicine), Janina Misiewicz (1893–1958, pulmonology), Tadeusz Orłowski (1917-2008, nephrology, transplantology), Eleonora Reicher (1884-1973, rheumatology), Jan Roguski (1900-1971, nephrology), Edward Rużyłło (1909-2009, rheumatology, gastrology), Edward Szczeklik (1898–1985,

cardiology, clinical enzymology), Tadeusz Tempka (1885–1974, hematology), Marian Tulczyński (1910–1987, internal medicine, infectious diseases), or Jakub Węgierko (1889–1960, diabetology). 12-18 Almost all of them established famous schools focused on some subspecialties, and now their numerous students and their students are among leading internists at all Polish medical universities and in some foreign medical centers.

Research and teaching activity Witold E. Orłowski's scientific concepts were ahead of his times. He considered a disease as a systemic and dynamic process resulting from complex pathophysiological and biochemical phenomena. He supported novel diagnostic methods and successfully and eagerly introduced them in his department. He contributed to development of Polish medical terminology. In 1932, Orłowski published a Polish classification of rheumatic diseases.

Witold E. Orłowski carried out scientific research in various fields of internal medicine. He devoted most of his attention to diseases of the circulation, metabolism, gastrointestinal tract, and tuberculosis. Among his most important scientific works were studies on pathogenesis and pathophysiology of chronic circulatory insufficiency. He refuted the views of Hans Eppinger Jr. (1879-1946), and proved that circulatory insufficiency is a systemic disease and that its treatment should be directed at the whole body level. He demonstrated harmfulness of barium chloride in patients with heart disorders. He described new aspects of acidification of the human body, studied the processes of self-poisoning in certain diseases, and the pathophysiological role of alkalosis. He also investigated the effect of vegetable juices on gastric secretory function, indicating that they should not be consumed by patients with gastric ulcers. He described the importance of vegetables in dietetics. He was the first physician in Russia to use artificial pneumothorax for treatment of tuberculosis.7 Many of Orłowski's research works focused on laboratory diagnostics, especially in kidney and urinary tract diseases and hematology.

Witold E. Orłowski authored more than 200 research papers published in 8 languages. His disciples published almost 600 papers reporting studies performed under Orłowski's supervision. In addition to his native Polish language, he was fluent in Russian, German, and French. After the World War II, at an advanced age of over 70 years, he became fluent in English, understanding that it was necessary to follow progress of medical sciences.

He was also an author of a number of medical textbooks. Still a student, Witold E. Orłowski, together with his brothers Zenon and Mieczysław, published lectures of Professor Nil Ivanovich Sokolov (1844–1894) on internal medicine (Petersburg, 1894). Later, in 1910 in Kazan, he published a handbook on clinical interpretation of urine examination. Orłowski's handbook on

diagnostics of internal disorders was reprinted in Kraków 3 times. He also published a handbook on medical dietetics (Kraków, 1922). Before the World War II, he published a few textbooks, for example, on diagnostics of internal diseases (Kraków, 1924, 1926) or pathology and therapy of internal diseases (Warsaw, 1933-1938).4 Witold E. Orłowski was the only author of a huge textbook on internal medicine published in 8 volumes. The work entitled Treatise on Internal *Medicine* appeared in print from 1947 to 1957. It is the last Polish monographic textbook written by a single author and covering all fields of internal medicine. Earlier volumes of this work were re-edited and updated by the author several times until the last days of his life.

A talented organizer and supporter of the Polish associations abroad As a student, Witold E. Orłowski systematically read Polish medical papers published in Kraków and Lviv. He was also active in the circles of Poles living in Petersburg. In 1901, Orłowski cofounded the Polish Medical Association in Petersburg. He was elected a scientific secretary of the association (1903-1907), and published periodic reports on scientific activity of Polish medical circles in Petersburg. The reports appeared in *Medical Review*, a journal published in Kraków. Now it is the only available source on the activity of Polish physicians in Petersburg in those days. Later, in 1907, the association was transformed into the Polish Society of Physicians and Naturalists in Petersburg. Witold E. Orłowski was elected the first honorary member of the Society.7

Orłowski was deeply involved in the social and educational movement of the Polish minority in the Russian Empire. He published a press statement on futile efforts to introduce teaching of Polish history and literature in Russian schools in a progressive liberal newspaper Rossiya (1905).

Thanks to Orłowski's personal efforts, various Polish charity groups in Kazan were united. After the outbreak of the World War I, Orłowski, as a member of the executive board of the Polish War Victims Relief Committee, organized 3 Polish elementary schools, a high-school course of Polish language, and courses for illiterates in Kazan. He also organized an orphanage for Polish children. At his initiative, a central institution to coordinate the activities of Polish refugees in Kazan, so-called the Polish Home, was opened. The institution provided material, cultural, and educational support for a significant number of Poles as well as offered medical assistance in the form of a free outpatient clinic. He was also elected a representative of the Polish minority in the Municipal Council of the city of Kazan. In 1916, Orłowski was a cofounder of the Polish Medical Monthly published in Kyiv.^{4,7}

At the outbreak of the October Revolution, Witold E. Orłowski was appointed a head of a Regional Hospital of Zemstvo in Kazan. Zemstvo was a form of local government authority



FIGURE 3 A stamp commemorating Witold E. Orlowski issued by the Polish Post in 2006 for the centenary of the Polish Society of Internal Medicine



FIGURE 4 A medal of the Polish Society of Internal Medicine depicting famous Polish internists, including Witold E. Orłowski (arrow). The medal was designed by Edward Gorol in 1964.



FIGURE 5 A medal depicting Witold E. Orlowski, minted to commemorate the 30th Congress of the Polish Society of Internal Medicine, Katowice 1989. The medal was designed by Zygmunt Brachmański.

later cancelled by the Bolsheviks. After moving to Tomsk and Irkutsk, Orłowski was still active in local Polish circles. Even during the long-lasting sea travel to Poland, he organized a school for Polish children on board of the ship.



FIGURE 6 A medal depicting Witold E. Orłowski, designed by Anna B. Wątróbska-Wdowiarska, minted in 2011 to commemorate the 50th anniversary of the foundation of the Orłowski University Hospital in Warsaw

All his professional life, Witold E. Orłowski actively participated in the activities of scientific medical societies. In Kraków, he founded the Kraków Division of the Polish Society of Internal Medicine. He organized the First Polish Congress against Tuberculosis (1925). He was a president of the Polish Society of Internal Medicine (1925–1929)¹⁹⁻²⁰ and an editor-inchief of the *Polish Archives of Internal Medicine* (1928–1948).²¹⁻²² He was elected a president of the Warsaw Medical Society (1930) and a president of the Polish Society Against Rheumatism (1930–1947), later renamed the Polish Society for Rheumatology.²³

He was a very good and creative organizer and constantly strived to improve the world around him as best he could. The goal of all his actions was the good of people. This is how he was remembered by his patients, colleagues, students, friends, and other individuals with whom fate brought him into contact during his long, interesting, and fruitful life.

Commemoration Orłowski's achievements have been commemorated. At the centenary of the Polish Society of Internal Medicine, 3 stamps were issued by the Polish Post, and 1 of them depicted Witold E. Orłowski (FIGURE 3).²⁴ An effigy of Orłowski can be found in the Medal of the Polish Society of Internal Medicine as one of the 7 most famous Polish internists (FIGURE 4). A medal with an image of Witold E. Orłowski was also minted for the 30th Jubilee Congress of the Society in 1989 (FIGURE 5). The Warsaw University Hospital of the Center for the Medical Postgraduate Education was named after Orłowski (FIGURE 6).

ARTICLE INFORMATION

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HOW TO CITE Kucharz EJ. Professor Witold Eugeniusz Orlowski, a founder of the Polish school of internal medicine: a sesquicentennial remembrance. Pol Arch Intern Med. 2024; 134: 16765. doi:10.20452/pamw.16765

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