MEMORIAL ARTICLE

In memoriam: Professor Franciszek Kokot

Professor Franciszek Kokot: a true pioneer in nephrology By Andrzej Wińczeck and Janusz Ostrowski

Professor Franciszek Kokot (FIGURE 1) was born on November 24, 1929, in Olesno Śląskie, Poland. He started his medical education in 1948 in the first class of a newly created Medical Academy in Rokitnica Bytomskia (currently known as Medical University of Silesia in Katowice, Poland) and completed his medical education with distinction in 1953. Already at that time, Prof. Kokot was employed by his home Medical Academy as a laboratory technician at the Department of General Chemistry and later at the Department of Pharmacology, where he was also appointed after completion of his medical education. At that time, according to the existing rules, Prof. Kokot was forced to start his residency in the field of internal medicine as a volunteer at the 3rd Department of Internal Medicine of the Silesian Academy of Medicine, headed by the famous Polish internist Prof. Kornel Gibiński. This was the real beginning of Prof. Kokot’s future great scientific and clinical career. Already in 1958, he was appointed assistant professor at that department (in 1957, he defended his PhD thesis entitled “Kidney function during the artificial hibernation”) and in 1963, associate professor (after habilitation in 1962, based on his scientific achievements and the dissertation entitled “Studies on the mechanism of action of mercury diuretics.” In 1968, Prof. Kokot received the title of an associate professor, and in 1982, full professor of medicine awarded by the State Council of Poland.

Besides his successful scientific career, Prof. Kokot was also recognized as an exceptional clinician, who was a specialist in internal medicine, nephrology, hypertensiology, endocrinology, and clinical pathophysiology. With his good theoretical background in biochemistry, pharmacology, and pathophysiology, under the supervision of Prof. Kornel Gibiński, Prof. Kokot’s interest in water-electrolyte and acid-base disorders as well as in metabolic abnormalities in patients with acute or chronic kidney insufficiency developed. In 1965, Prof. Kokot became head of the Division of Nephrology at the Department of Internal Medicine, Silesian Medical Academy (currently Medical University of Silesia in Katowice), and in 1975, head of the Department of Nephrology, which he created almost from the scratch. In 1997, this department changed its name into the Department of Nephrology, Endocrinology and Metabolic Disorders, and finally in 2015, was renamed as the Department of Nephrology, Transplantation and Internal Medicine, Medical University of Silesia in Katowice. Prof. Kokot retired in 2000; however, he continued his scientific and clinical activity in his home department until 2016. It is also important to mention that in the 1960’s, Prof. Kokot created in Katowice one of the first dialysis units in Poland, and moreover, in 1993, the first dialysis unit for patients with end-stage chronic kidney disease treated in the Beskid spa hospital in Wysowa.

Prof. Kokot’s outstanding scientific and clinical achievements are also related to his role as an educator. He had amazing results as a teacher and supervised the specialty program in internal medicine or nephrology of around 100 physicians. He also supervised 79 PhD theses and 24 habilitations (additional 6 were conducted abroad in Halle, Roscoff, Jena, and Berlin), from which 14 achieved the title of full professor in medicine. These impressive numbers may clearly indicate that Prof. Kokot created his own school of nephrology and his pupils became leaders and heads of several divisions or departments of nephrology not only in Poland but also abroad. This was his contribution to the fundamentals of nephrology which separated from internal medicine in the 1960’s. Therefore, it is not surprising that Prof. Kokot was one
of the founders of the Polish Society of Nephrology in 1983, and during the 49th Congress of the European Renal Association-European Dialysis and Transplant Association (ERA-EDTA) in 2012 in Paris, he was named a Pioneer in Nephrology among other most eminent nephrologists from Europe. Prof. Kokot was the author or coauthor of more than 720 papers listed in PubMed, which in a large proportion were published in the high-impact international medical journals. The entire number of published medical articles by Prof. Kokot exceeds 1400, among them, more than 820 published as full-text articles.

Most famous scientific topics which brought him international recognition are related to endocrine abnormalities in patients with acute or chronic kidney insufficiency, in patients with primary or secondary hypertension, after kidney transplantation and also in patients with kidney stones. The second most important area of scientific interest expressed by Prof. Kokot was to demonstrate that kidneys play an important role as an endocrine organ, which can be used both for diagnostic procedures as well as in the pathophysiological considerations in patients with hypertension or kidney diseases. Prof. Kokot in his unique way was able to utilize his knowledge which he acquired during his long-term (Geneva, 1959–1960) or short-term (London, 1970) scholarships and to build his own scientific laboratory, where based on his own radioimmunological methods, he was able to assay several hormones. At that time, measurements on such a large scale (not only in Poland but also in all other communist countries) were performed only using these own methods which Prof. Kokot elaborated in his laboratory. It is also important to mention that most valuable and innovative results published by Prof. Kokot were related to the role of the renin–angiotensin–aldosterone system in the pathogenesis of arterial hypertension and in kidney diseases. He published more than 200 papers in this particular field in several prestigious medical journals both in Poland and abroad.

Besides these original, scientific works, Prof. Kokot has been also an editor of several important textbooks for students and physicians. The most important book, which had several editions and was recognized as a most valuable academic textbook, was entitled Internal Diseases. Additionally, Prof. Kokot was an editor of several other books, which were also important and unique with regards to both their content and the form of presentation, such as, Water-electrolyte and acid-base metabolism in physiological and pathological conditions and also Differential diagnosis of disease symptoms. Finally, it is important to stress that Prof. Kokot also translated many books from German or English into Polish, among them a most famous textbook, Harper’s Biochemistry.

Prof. Kokot played an important role in many national and international scientific societies. From 1989, he was elected 3 times as the president of the Polish Society of Nephrology. During his presidency, Polish nephrology was introduced into the international community. Prof. Kokot was also elected 3 times as a council member of the ERA-EDTA in the years: 1978 to 1981, 1987 to 1990, and 1993 to 1996. As an ERA-EDTA council member, Prof. Kokot organized a memorable meeting in the Vatican with Pope John Paul II, which was concluded with a very important statement supporting the idea of organ donation for transplantation. This initiative is considered to be a fundamental stage in the development of organ donation and transplantation.

Prof. Kokot was also a council member of the International Society of Internal Medicine, Polish Society of Internal Medicine, and Polish Society of Hypertension. He was involved in the development of science and higher education in Poland, namely, he was elected vice-rector (since 1980) and then rector (1982–1984) of Silesian Medical Academy, was a member of the State Committee for Scientific Research (Komitet Badań Naukowych) and also a member of the Central Commission for Degrees and Titles (chairman of the Medical Section in 1978–1990 and 1993–2006). Prof. Kokot was also a full member of the Polish Academy of Sciences (Polska Akademia Nauk) and an active member of the Polish Academy of Arts and Sciences (Polska Akademia Umiejętności). He was also awarded the honorary degree (doctor honoris causa) of 10 Medical Universities in Poland and abroad (including Jagiellonian University in Kraków). Additionally, he was a honorary member of several scientific associations in Poland and abroad. It is important to mention that Prof. Kokot was the recipient of a very unique and prestigious honorary membership of the ERA-EDTA in 2010. For his outstanding achievements in the field of education and science, he was awarded with the highest distinctions in Poland, namely, the Knight’s Cross and Commander’s Cross of the Order of Polonia Restituta. Posthumously, Prof. Kokot received the Order of the White Eagle.

Prof. Kokot passed away on January 24, 2021. It is very difficult to present in such a short way all his achievements and merits. It is even more difficult to present him as a charismatic speaker, visionary in many scientific areas, organizer of the nephrological care in Poland, and extraordinary physician, who in spite of so many different activities, was involved also in patient care on a daily basis. However, to present Prof. Kokot as our teacher and mentor is most difficult for us because this influence was so vast that it covered our entire professional and scientific lives.

SUPPLEMENTARY MATERIAL
Supplementary material is available with the article at www.mp.pl/paim.

ARTICLE INFORMATION
AUTHOR NAMES AND AFFILIATIONS
Andrzej Więcek, Janusz Os- trovski (AW: Department of Nephrology, Transplantation and Internal Medicine, Medical University of Silesia in Katowice, Katowice, Poland; JS: Department of History of Medicine, Centre of Postgraduate Medical Education, Warsaw, Poland)
In memoriam Professor Francisczek Kokot medici magni

By Eugeniusz J. Kucharz

Professor Francisczek Kokot (Figures 1 and 2) passed away on January 24, 2021. The tragic pandemic of COVID-19 claimed the life of a highly skilled physician, one of the truly great internists of the 20th century, and one of the most prominent Polish physicians of all times. Prof. Kokot was a reputable scientist with a great intuition who persistently carried out research on pathophysiological phenomena of several disorders, and was a mentor to many generations of physicians. He was a role model in diligence and perseverance as well as regularity that was difficult to imitate.

Prof. Kokot was born on November 24, 1929, in Olesno Śląskie (Poland) in a family of Silesian farmers. Olesno Śląskie, before World War II, was located in Germany (under the German name Rosenberg) as part of the Upper Silesian Province (Provinz Oberschlesien). He attended the primary school in his home city, and after the war, graduated from a Polish high school in Lubliniec in 1948. In the same year, he was admitted with the first group of students to the newly founded Medical University of Silesia (then, Medical Academy in Rokitnica Bytomска). While a student, Franciszek Kokot was working as a laboratory technician at the Department of General Chemistry, and since September 1, 1951 as a junior assistant at the Department of Pharmacology. He graduated with honors on December 22, 1953, and became an assistant at the Department of Pharmacology (Prof. Józef Jeske). Additionally, in 1953, he became a volunteer at the 3rd Department of Internal Medicine, chaired by Prof. Kornel Gibiński. In February 1957, Franciszek Kokot left the Department of Pharmacology and obtained a full-time post of assistant at the 3rd Department of Internal Medicine. In 1957, he received his specialty in internal medicine (the 1st degree). Also in March 1957, he was granted the PhD degree after the presentation of his thesis on renal function under condition of artificial hibernation in animal model (Prof. Józef Hano, a supervisor). Franciszek Kokot obtained the 2nd degree of certification in internal medicine in 1958. In 1963, he was awarded with a habilitation—the highest-rank university examination in Poland (and other European countries) confirming scientific qualification of the candidates to be appointed university professor. His habilitation thesis focused on the mechanism of activity of mercurial diuretic agents. Three years later (in 1966) he became head of the Nephrological Division at the 3rd Department of Internal Medicine. He was granted the title of associate professor in 1969, and full professor in 1982. In 1975, he became head of the newly established Department of Nephrology of the Medical University of Silesia. The unit was renamed as the Department of Nephrology, Endocrinology and Metabolic Diseases in 1997. Prof. Kokot was head of the department until his retirement in 2000, but was working at the department until 2016.

Prof. Kokot published almost 1600 papers. He authored the first paper in 1954 and his last publication appeared in print in 2020. It is impossible to review and summarize all his research achievement. In brief, his early works focused on pharmacology, subsequently he significantly contributed to medical enzymology. Prof. Kokot supervised an excellent biochemical laboratory and elaborated several assays, both biochemical and radioisotopic. He was a pioneer in research on the renin–angiotensin–aldosterone system. A number of his investigations focused on various endocrine and metabolic alterations in patients on a long-term extracorporeal dialysis. He authored significant papers on the mechanism of hypertension, eclampsia, and endocrine abnormalities, including investigations of calcium homeostasis.

Shortly after graduation, Prof. Kokot became a member of the Polish Society of Internal Medicine. Still as a young physician, he was awarded the first prize from the society for his research activity in 1957. In 1968, he was elected the president of the Silesian Division of the Polish Society of Internal Medicine and held the post until 1970. In the same year, he was elected a member of the Executive Board of the Polish Society of Internal Medicine. In 1976, he became the vice-president of the Society. He was chairman of the Nephrological Section of the Polish Society of Internal Medicine (1973–1976).

The Polish Society of Internal Medicine honored Prof. Kokot with the highest Society award, the honorary membership, in 1995. He was also awarded with a medal from the society. In 2006, Prof. Kokot was awarded with the Centenary Medal of the Polish Society of Internal Medicine as well. He participated in a number of congresses...
and meetings of the society. In 2004, he delivered an opening lecture at the 35th Congress of the Polish Society of Internal Medicine in Katowice. The lecture presented his life path and development of his scientific discoveries, and due to its very personal nature, it is fondly remembered by the participants of this conference. Unforgettable are the lectures which he delivered almost annually at the National Educational Conferences of the Polish Society of Internal Medicine. In 1997, he delivered the opening lectures at the Third Central European Congress of Internal Medicine in Wysła. His lecture opened the 5th Polish-Slovak Conference on Internal Medicine in 2004 in Wysowa.

Prof. Kokot participated in an international movement of internists. He was a member of the International Society of Internal Medicine (since 1969) and in 1976, was elected a foreign member of the Society of Internal Medicine of the German Democratic Republic.

It is hard to overestimate the contribution of Prof. Kokot to education of several generations of internists in Poland. He was an author and editor of a number of fundamental handbooks of internal medicine. His handbook Internal medicine ("Choroby wewnętrzne") was edited 8 times, always in updated editions (1979–2004). For many medical students in Poland, the handbook was the main introduction to internal medicine. The monographic handbook Internal medicine ("Innena") in 3 volumes appeared in print in 2002 and was edited by Franciszek Kokot and Włodzimierz Januszewicz. The second edition was published in 2006 as part of the Golden Series commemorating the Centenary of the Polish Society of Internal Medicine with preface written by the president of the society.

A special handbook was edited by Prof. Kokot under the title Differential diagnosis of symptoms and signs of disorders ("Diagnostyka różnicowa objawów chorobowych"). It was the third book of such kind in the history of Polish medicine after the book by Władysław Biegański and Edward Szczeklik. The book edited by Prof. Kokot had 3 editions in 1990, 1998, and in 2006. The last edition appeared as a book commemorating the centenary of the Polish Society of Internal Medicine. It is important to mention that Prof. Kokot was an author of a few chapters in the above-mentioned book on differential diagnostics edited by Edward Szczeklik.


One cannot forget about other publications of textbooks and monographs that were read by generations of Polish physicians. As an example, there are 3 editions of the work Emergency conditions in internal diseases ("Ostre stany zagrożenia życia w chorobach wewnętrznych") which were edited by Prof. Kokot in 1998, 2000, and 2003.

For nearly half a century, Prof. Kokot was the author of chapters in significant Polish textbooks and monographs. Their list is very long and only selected examples can be given. It is enough to mention his participation in the creation of such significant works as Clinical enzymology ("Enzymologia kliniczna") edited by Edward Szczeklik, which was one of the first monographs in the world of a new emerging area of clinical medicine, diagnostic enzymology (editions in 1967 and 1974). We also coauthored the work Enzymological diagnostics in clinical practice ("Diagnostyka enzymologiczna w medycynie praktycznej") edited by Jerzy Krawczyński (1965). Other works prepared with the participation of Prof. Kokot include: Vademecum of management ("Vademecum terapii," edited by Włodzimierz Brühl in 1975), Kidney diseases ("Choroby nerek," edited by Tadeusz Orłowski in 1976), Clinical endocrinology ("Endokrynologia kliniczna," edited by Walenty Hartwig, published in 1972 and edited in 1984).

Each year from 2005 new editions of the monumantal textbook Internal medicine edited by Andrzej Szczeklik, now known under the title Szczeklik’s internal medicine (edited by Piotr Gajewski), are published. Prof. Kokot has been the co-author and coeditor of this textbook continuously since 2005.
There is also a long list of foreign monographs that were translated into Polish and edited by Prof. Kokot. The most famous are several editions of *Harper’s Biochemistry*.

Prof. Kokot was a physician who understood internal medicine as it was understood by the first founders of this medical specialty. Internal medicine emerged from medicine not as another specialty narrowing its interests to specific systems or organs, but as a discipline representing a then–new approach to the issues of health and disease, primarily basing diagnostics and therapy on the pathophysiological understanding of phenomena occurring in the human body as a whole. The holistic approach to health and disease meant that internal medicine, despite the gradual division into subspecialties, from the beginning of its existence understands the patient as an entire integrated system.

In the first years of scientific work, Prof. Kokot conducted research in the field of basic science, had thorough pharmacological and biochemical knowledge, was creatively involved in laboratory diagnostics, and thus understood clinical procedure through the prism of biochemical and physiological phenomena. This trend includes his works on acid–base and water-electrolyte balance, metabolic studies in kidney diseases, works in hypertensiology, and numerous endocrinological works. The kidneys, as the organ responsible to a large extent for the homeostasis of the human body, have been the subject of his numerous investigations. However, he never lost a holistic view of the patient, and in this sense, he was a precursor of personalized medicine who always individualized the management of each patient. In the preface to *Differential diagnosis of symptoms and signs of disorders*, he wrote, “Only a good knowledge of the pathophysiology of disease symptoms enables the correct diagnosis in the shortest possible time, and with the least possible burden of application of additional procedures.”

As a teacher, he educated a large group of PhD students, some of whom became professors of medicine, and board-certified physicians. His knowledge and example influenced the formation of many generations of internists and medical students. It is difficult to overestimate the influence of his textbooks on the medical education in Poland over the last half century. In all his actions, Prof. Kokot was a man of great honesty and integrity. This was especially evident in his relationship with his patients. In an interview published in 1997, Prof. Kokot said, “Knowledge applied at the bedside gives great satisfaction. I have the advantage over laboratory researchers that I can use my theoretical knowledge in diagnostics and treatment. Nothing can replace the words of a patient who, on leaving the hospital, says ‘thank you, doctor, you saved my life.’ These are unique moments for me. (...) The greatest happiness of a human being is to give something to other people, even knowledge.”

Prof. Kokot will remain remembered as an outstanding physician, an extremely hard-working scientist and a talented teacher, but those who got to know him closer will remember Prof. Kokot, above all, as a good man.

**ARTICLE INFORMATION**

**AUTHOR NAMES AND AFFILIATIONS** Eugeniusz J. Kucharz (Department of Internal Medicine, Rheumatology and Clinical Immunology, Medical University of Silesia, Katowice, Poland)

**CORRESPONDENCE TO** Eugeniusz J. Kucharz, MD, PhD, Department of Internal Medicine, Rheumatology and Clinical Immunology, Medical University of Silesia, ul. Ziołowa 45/47, 40-635 Katowice, Poland, email: ekucharz@poczta.onet.pl

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**The authority of a master** By Jan Dulawa Professor Kokot, a great physician, scientist and teacher passed away on Sunday, January 24, 2021. His contribution to medicine cannot be overestimated. He was a universal and undisputed scientific, professional, and moral authority. Authority is a term which is on the one hand overused, and on the other hand difficult to define. Hans Georg Gadamer believed that authority was based on the act of acknowledging and knowing that the other person is superior in judgement.
and insight, and, for this reason, their judgement takes priority over any other’s. Gadamer also argues that it is the freedom of those under the authority that serves as the source of legitimate authority. Without such free recognition, authoritarian structures and strive for power may arise. Gadamer points out that if a person is “authoritarian” (autorität), they draw upon institutional power and a hierarchical position to demonstrate authority. Genuine authority (authoritativeness), as opposed to formal authority (authoritarianism), does not refer to power, but to a form of genuinely recognized and not merely asserted validity. If someone has to invoke authority, they possess none. Genuine authority focuses on truth and discovering the conditions for the truth to emerge against human prejudice, superstition and promen to accept our preferences as being true.

The authority of Prof. Kokot was not the result of any title bestowed upon him or any office he held, but widespread recognition of his use of reason and deep insight into the challenges he devoted his life to. For his closest coworkers, he was a true master.

The most important expectation pupils have of their master is a chance to place their complete trust in him. A Polish philosopher, Leszek Kołakowski, wrote: “The existence of people we can trust completely is probably the most important thing in life.” Trust in a master is something unique.

An eminent Polish sociologist, Piotr Sztompka, compares trust to specific capital which we launch when making bets in the everlasting gamble of forming contacts with other people. Placing trust, that is, making bets about future uncertain and uncontrollable actions of others, is always associated with risk. Our wagers of trust carry different degrees of risk depending on what we expect of our partners in social interactions. Piotr Sztompka mentions 3 categories of expectations.

Instrumental expectations refer to the conduct traits of the partner (who can also be referred to as our expectation target). Regularity, correctness, and predictability seem the least risky to expect whereas an expectation of rationality, and then changes (although it is hard to say how and when) into autotelic, that is, warm bonds.

Dear Franciszek, the distress and regret your

A master is also expected to meet some axiological expectations, that is, those of being reliable, honest, truthful, fair, and adhering to principles. These are quite high expectations, and the stakes are even higher—it is more difficult to be both rational and moral than to be just rational.

However, this is not all. We expect a master to be a caring person; these expectations are referred to as representative (Ralf Dahrendorf) or fiduciary (Bernard Barber). We then hope for thoughtfulness, noble-mindedness, altruism, and disinterested help. These expectations and the wager of trust are the most risky. Where to look for a noble altruist who adheres to his or her principles, and is competent, efficient, and rational? This was who you met in the person of Prof. Kokot. Beyond any doubt, Prof. Kokot was a true master.

The question then arises whether an emerging master–pupil relationship (social interaction, in the language of sociology) is characterized by some special features.

Sociology emphasizes the importance of emotional motivation and expression between interaction partners. In some types of social relations, such as love, friendship, parenthood, emotional motivation and expression of feelings are not only acceptable but also expected. These relationships are intimate warm ties of an autotelic character. The word autotelic comes from the Greek roots auto- “self” and telos, an “end” or “goal.” By combining the 2, you get a self-goal—a goal within itself, that is, an activity which is intrinsically rewarding. Many sociologists believe that societies find the purest and most uncorrupted fulfillment through autotelic behaviors. A German sociologist of the 19th century, Ferdinand Toennies, distinguished between Gemeinschaft (“community”), a social form motivated by a “natural/essential will,” and consisting of co-operation, custom and religion, and Gesellschaft (“society”) formed around the “arbitrary will” in which an individual manipulates a social grouping towards achieving his individual goals. In the latter, it would be quite inappropriate to be driven by or show emotions. These behaviors are referred to as official or cold and may be exemplified by professional relationships: superior–subordinate, official–petitioner, expert–client.

There can, of course, be different degrees of warmth and coldness, mixed situations, and even manipulations. Robert Merton described pseudo-Gemeinschaft behavior as a device to win friends through apparently autotelic bonds, and then instrumentalize the relationships to control and exploit the partners. He also discussed some social roles that are expected to combine ambivalent expectations, and analyzed an example of the medical doctor, who is expected to be objective and technically efficient, but also to give the patient compassionate care (the concept of detached concern).

In the above context, the master–pupil relationship appears to be quite unique, and this is because in our everyday lives, we quite frequently confront pseudo-Gemeinschaft behaviors where someone is trying to take advantage of our trust. It seems that the master-pupil relationship begins with cold (ie, instrumental) behaviors, and then changes (although it is hard to say how and when) into autotelic, that is, warm bonds.

Dear Franciszek, the distress and regret your pupils experience after you had left can hardly be expressed. It seems there truly are irreplaceable individuals among us.
ARTICLE INFORMATION

AUTHOR NAMES AND AFFILIATIONS  Jan Duława (Department of Internal Medicine and Metabolic Diseases, Faculty of Health Science, Medical University of Silesia, Katowice, Poland)

CORRESPONDENCE TO  Jan Duława, MD, PhD, Department of Internal Medicine and Metabolic Diseases, Faculty of Health Science, Medical University of Silesia, ul. Zielowa 45-47, 40-635 Katowice, Poland, phone: +48 32 252 35 93, email: jdulawa@sum.edu.pl

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