

## Polish cardiology started in Lodz 60 years ago — 1950–2010

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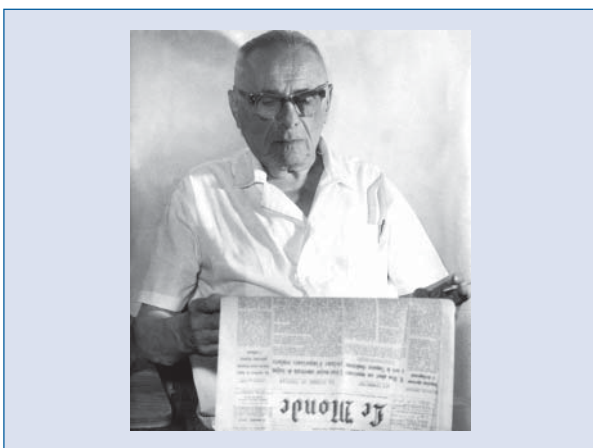
The beginnings of cardiology date back to the mid-1940s, when the Second Clinical Department of Internal Medicine began its activity as part of Lodz University. Its organiser and first head was Jerzy Jakubowski (Fig. 1), who previously worked at St Lazarus Hospital in Warsaw. After the reorganization of medical education in 1950 the Second Clinical Department of Internal Medicine became part of the Faculty of Medicine of the newly established Medical Academy in Lodz and started implementation of pioneering procedures in the diagnosis and treatment of heart diseases.

The significance of Lodz cardiology in Poland was confirmed by its key role in bringing the medical community interested in cardiac and vascular diseases together. The first initiatives were authored still before World War II by Mściwój Semerau-Siemianowski, a graduate of Berlin and Strasburg Universities. The Cardiology Section within the Polish Society of Internists was established in 1950 at the hospital located at ul. Sterlinga 1/3 (Fig. 2).

Mściwój Semerau-Siemianowski became its chair and Jerzy Jakubowski was appointed its vice-chair.

The cardiologist community convened regularly and Mściwój Semerau-Siemianowski's idea was to establish a separate professional society. It was not until after his death that his idea materialized at the Polish Society of Internists Cardiology Section ceremonial session commemorating his achievements. The session took place in February 1954 in a newly opened lecture hall of the Hospital at ul. Sterlinga 1/3 and was chaired by Jerzy Jakubowski. One of the adopted motions was to transform the Cardiology Section into the Polish Society of Cardiology. Jerzy Jakubowski was appointed its first chairman and held this position until 1961. One of the members of the Executive Board was his successor in the post of the Head of the Clinical Department, Włodzimierz Musiał.

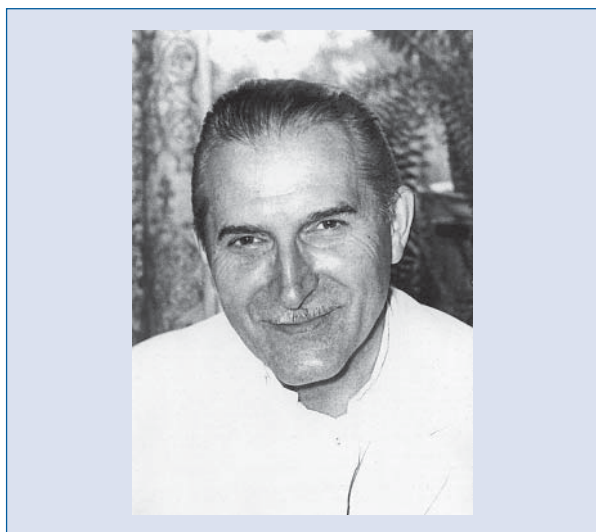
Jerzy Jakubowski gathered many talented and very hard-working doctors around him, creating a foundation for research into heart diseases.



**Figure 1.** Prof. Jerzy Jakubowski: creator of Lodz School of Cardiology and the first Chairman of the Polish Society of Cardiology.



**Figure 2.** Dr Seweryn Sterling Memorial Hospital according to the photograph taken in 1896. A pencil drawing by Tadeusz Majda.



**Figure 3.** Prof. Jan Moll: creator of Lodz School of Cardiac Surgery.

Among the numerous employees of the Second Clinical Department of Internal Medicine the following doctors have been particularly active: Helena Dzioba, Ryszard Fenigsen, Julian Witorzeń, Halina Pracka, Halina Bolińska-Sołtysiak, Halina Pruska-Koepp, Marek Edelman, Jadwiga Kałużna, Maria Krzemińska-Pakuła, Wiesława Tracz, Andrzej Żebrowski. Helena Dzioba enjoyed a great authority among both cardiologists and cardiac surgeons. The staff of the Second Clinical Department of Internal Medicine also included future heads of other clinical departments: Zbigniew Orłowski and Witold Chrzanowski (nephrology), Euzebiusz Krykowski and Aleksandra Mazurowa (hematology) and Anna Płużańska (chemotherapy). Luba Judkiewicz closely co-operated with this group of doctors, providing invaluable support in the field of coagulation disorders.

A further impulse for the development of cardiology was the arrival of Jan Moll from Poznań in 1958 and the initiation of surgery for congenital and valvular heart disease (Fig. 3). A need for precise cardiologic diagnoses and for pre- and post-operative care arose. The close collaboration between the Clinical Departments of Cardiology and Cardiac Surgery provided grounds for conducting and improving novel diagnostic methods and surgical techniques.

At that time the clinical department was the leading clinical cardiology center in Poland. The group of excellent cardiologists perfected the utilization of history taking and physical examination for making the diagnosis and achieved outstanding pro-

iciency in the art of cardiac auscultation. Some of the center's experience was shared in a textbook first published in 1968 by the PZWL publishing house entitled: "Cardiac auscultation and other methods of examination of the circulatory system" by Ryszard Fenigsen. There have been many editions of this textbook, which continues to be an important publication in clinical cardiology education.

In the 1960s a team for non-invasive cardiovascular diagnostics was established with its composition including Włodzimierz Musiał, Halina Pracka, Halina Bolińska-Sołtysiak, Maria Krzemińska-Pakuła, Wiesława Tracz. Phono- and mechanocardiography were developing very rapidly, forming the basis of qualification for surgery in addition to clinical evaluation. Vectorcardiography, also implemented in clinical practice, was another direction of non-invasive diagnostics at that time. The combination of extensive theoretical knowledge, ample clinical experience and the skill to make use of whatever equipment was available all contributed to the success of the Lodz center.

Some of the doctors who joined the cardiology team in the following years included: Andrzej Żebrowski (1966), Maciej Kuczborski (1968), Jerzy Wojciech Kozłowski (1970), Włodzimierz J. Musiał (1972), Sławomir Oszczygieł (1974), Barbara Szaruga (1976), Małgorzata Radzikowska-Wasiak (1976), Jan Ruta (1979), Ryszard Moczak (1980), Wojciech Zaręba (1981), Teresa Łysoń (1982), Danuta Polak-Słaboszewska (1982) and a numerous group of doctors who still work in the team now (Figs. 4, 5).

An intensive coronary care unit was established within the structures of the Clinical Department of Cardiology already in the 1960s. One of the first endocavitary electrodes for temporary cardiac pacing was placed here, the first defibrillator in Lodz appeared here, the first invasive monitoring of hemodynamic parameters was carried out here and streptokinase in myocardial infarction was first administered here. The methods of intensive coronary care were being systematically improved throughout the existence of the Clinical Department. Halina Bolińska, Maria Krzemińska-Pakuła, Maciej Kuczborski and Wojciech Zaręba were closely associated with the ward.

Particularly important collaboration was developed with the Institute of Gynecology and Obstetrics Clinical Department of Gestational Pathology headed by Józef Sieroszewski. The person delegated for everyday contacts with the cardiology and cardiac surgery departments at the hospital was Teresa Pajszczyk-Kieszkiewicz, who personally consulted patients and conducted gynecological procedures for many years. The collaboration fo-



**Figure 4.** Włodzimierz Musiał with his team in the courtyard in front of the Admission Department of S. Sterling Memorial Hospital. The photograph was taken in 1970. First row from the left: Zofia Kolczycka-Flajszman, Jadwiga Kałużna, Wojciech Antoniewski, Halina Bolińska-Sołtysiak, Helena Dzioba, Włodzimierz Musiał, Halina Pracka, Maria Krzemińska-Pakuła, Wiesława Tracz, Euzebiusz Krykowski, Halina Pruska, Andrzej Żebrowski, second row from the left: Julian Witorzeńć, Maciej Kuczborski, Aleksandra Oczkowicz, Jerzy Lewandowicz, Witold Chrzanowski, Luba Judkiewicz, Lech Kubala.



**Figure 5.** Jan Moll with the team of surgeons and anesthetists of the Second Clinical Department of Surgery, Medical Academy of Lodz. The photograph was taken in 1972. First row from the bottom left: Barbara Koziorowska, Kazimierz Rybiński, Jan Moll, Antoni Działkowiak, Stefan Chyliński, second row: Dr Tuwim, Kowalczyk, Anna Godlewska, Krzysztof Stengert, Krzysztof Leśniak, Bogdan Eckersdorf, third row: Jerzy Narębski, Stefan Janicki, Marian Zwoliński, Wiktor Iljin, fourth row: Zdzisław Dobrowolski, Piotr Kintopf, Andrzej Roth.

cused on providing optimal care to women of child-bearing potential with congenital or valvular heart disease. Some pregnant patients were treated symptomatically with spontaneous vaginal birth being monitored at the gynecology center, while others underwent surgery before becoming pregnant and were provided with prophylactic anticoagulation especially in the case of implanted artificial heart valves. Others still underwent surgery during pregnancy as a life-saving procedure for both the mother and the child. Some patients undergoing surgery for severe congenital heart disease (e.g. Fallot's tetralogy) several decades before successfully carried their pregnancies to term and still remain under the team's care.

The close collaboration between the cardiologist, cardiac surgeon and obstetrician was of utmost importance here. The many years of experience in this area made it possible to develop optimal methods of patient management. The unique material that had been collected generated extensive interest in Poland and abroad. Many Polish centers implemented these management models. The observations were used to develop the first recommendations in this field in Poland. The cardiologic issues associated with pregnancy, childbirth and puerperium in women with valvular heart disease and artificial valves were dealt with by: Aleksandra Mazurowa, Jadwiga Kałużna, Maria Krzemińska-Pakuła, Wiesława Tracz, Jan Moll, Janusz Zasłonka, Alicja Iwaszkiewicz-Zasłonka.



The advent of echocardiography, a modern method for the evaluation of the heart and blood vessels, revolutionised cardiovascular diagnostics. Initially an ultrasound system manufactured in Poland was used. In the following years state-of-the-art foreign systems were purchased with the possibility of 2D-imaging and, more recently, 3D-imaging, with an additional transoesophageal probe and, more recently, an intracardiac probe. The Clinical Department's staff performed intraoperative echocardiography, which allowed to optimise the course of cardiac surgeries. The intracardiac echocardiography probe is currently used during the most complicated ablation procedures, for example, atrial fibrillation. The following doctors are inextricably linked with this diagnostic method: Barbara Szaruga, Teresa Łysoń, Marek Maciejewski, Ryszard Moczak, Danuta Polak-Slaboszewska.

There was a rapid development of cardiovascular invasive diagnostic techniques and it became possible to provide effective percutaneous treatment of coronary artery disease and in 2000 also in the phase of acute coronary syndrome. For the past nine years, together with other centers, the Lodz center has effectively been realising the programme of interventional management of acute coronary syndromes in the form of 24-hour on-call services of a team of doctors, nurses and technicians. The doctors associated with this activity over the past years include: Wiktor Iljin, Jan Moll, Antoni Działkowiak, Cezary Zwoliński, Jan Dobek, Wiesława Tracz, Stanisław Radomiński, Jerzy Kowalewski and Maciej Kośmider.

Research in the area of the electrophysiology of the conduction system of the heart and cardiac arrhythmias was another activity carried out by the Clinical Department of Cardiology, which resulted in the implementation of non-invasive and invasive methods in the field of electrocardiology. A reflection of the practical use of these experiences was the implementation of ablation as a method

of treatment for persistent cardiac arrhythmias. The activities of Maciej Kuczborski, Włodzimierz J. Musiał and Jan Ruta deserve particular mention in this context.

Implementation of various methods of electrostimulation was another field of the Department's activity. The first pacemakers were implanted in 1967 by a team of cardiac surgeons. In the years that followed pacemakers were gradually "taken over" by experienced cardiologists and are now almost exclusively a domain of cardiology. The close vicinity of cardiac surgeons and the related collaboration makes it possible to perform such extremely difficult and complicated procedures as lead extraction, treatment of electrotherapy complications or pacemaker lead endocarditis.

In the years that followed the state-of-the-art pacemakers with the function of hemodynamic monitoring, automatic cardioverter-defibrillator and resynchronization therapy. This area of electrotherapy is inextricably linked with the following doctors: Jan Moll, Antoni Działkowiak, Jerzy Sadowski, Andrzej Bocheński and Maciej Kuczborski.

Both of the above aspects, pacemaker implantation and invasive management of dangerous arrhythmias by conduction system ablation, are currently realised in the form of 24-hour on-call services. The programme entitled: "Let's not allow the patient die a second time" authored by Jerzy Krzysztof Wranicz has been initiated at the hospital as the first such programme in Poland and has been considered a pilot programme to be followed as an example by the other centres.

## Acknowledgements

The authors appreciate help of Paweł Baka, MD with preparation of the authorized English version of the manuscript.

The authors do not report any conflict of interest regarding this work.

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