



*Editorial*

## **Revival of biochemistry in Poland in the first years after World War II**

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Until the outbreak of the war in 1939 biochemistry in Poland had a beautiful tradition. The history of this discipline began in the second half of the 19<sup>th</sup> century through setting up the Laboratory of Medical Chemistry at Warsaw University (1865) and in following year of the Chair of Pathological Chemistry of the Jagiellonian University in Cracow. Those were the first units dealing with biochemistry organized in Europe. Further progress in this field is also connected with such names of Polish researchers as: Marceli Nencki, Leon Marchlewski, Kazimierz Funk, and later: Kazimierz Białaszewicz, Stanisław Przyłęcki and Jakub Parnas. Our outstanding biochemists of the after-war period: Tadeusz Baranowski, Bronisław Filipowicz, Włodzimierz Mozołowski, Bolesław Skarżyński and others have written about the history of biochemistry in this most important period in our country. Therefore I would only like to mention the most important events connected with the organization of research and education in biochemistry after the war, which I remember as I was employed at the Department of Medical Chemistry of the Jagiellonian University since 1948.

As I have already mentioned, the beautiful tradition of the development of biochemistry in Poland until 1939 was brutally stopped by

the outbreak of the war. Numerous teachers and scientists of the young generation lost their lives, there were enormous shortages as far as laboratory equipment, reagents, journals were concerned, and above all the lack of free exchange of persons and thoughts with the free world was particularly severe. Because of wide interest in rapidly developing, at the same time, trends of biochemical research abroad, opening new prospects in medicine, agriculture and industry in a relatively short time in all university centres in Poland research and educational units were created, which I will mention later on.

Professor B. Skarżyński during the 1st Congress of Polish Science in 1951 commented in detail about the difficulties in the development of biochemistry in our country after the war. As a result of a special appeal of the Congress, then Ministry of Health appointed at its Scientific Council a Commission for Biochemistry chaired by Prof. T. Baranowski. The Commission drew up a plan of research and appropriate organizational endeavours.

At the beginning medical and veterinary doctors were interested in biochemistry; hence the first research units and training in this field were organized at medical and agricultural faculties. In 1952 thanks to the activities of the above mentioned Commission, on Feb-

ruary 24th in Łódź the 1st Symposium devoted to the biochemistry of phosphorous compounds was organized. In the same year in April a nation-wide representation of biochemical sciences in the form of the Committee for Biochemistry at the Division of Biological Sciences of the Polish Academy of Sciences (PAS) was set up. It was composed of 10 persons and Prof. Józef Heller was elected as its first chairman. The first working meeting of the Committee took place on May 29th, 1952. The Committee immediately undertook measures aimed at a country-wide organization of research in the field of biochemistry, outlining research problems depending on current needs of the country, connected in particular with the development of clinical chemistry. It also resulted in the decision acknowledging biochemistry as a separate, independent discipline, which was becoming indispensable for harmonious development of science and economy of the country. Moreover, in 1952 the Committee for Biochemistry of the PAS forwarded letters to the Society for the Popularisation of Culture and Science, to the N. Copernicus Polish Society of Natural Scientists and to the Board of the Chief Technical Organization (NOT) in which it offered cooperation in the field of popularisation and lecturing activity. This gave birth to the Open University of the Polish Academy of Sciences. The activity of this unit of the Polish Academy of Sciences was developed particularly intensively in the next years by Prof. Włodzimierz Michajłow, for many years secretary of Division II of the Polish Academy of Sciences. Afterwards, in 1953 the decision was made to set up a journal *Advances in Biochemistry (Postępy Biochemii)* and *Acta Biochimica Polonica*. In 1954, in order to publish original experimental papers, the group of persons gathered in the Committee for Biochemistry of the Polish Academy of Sciences undertook the organization of new biochemical units. The Department of Biochemistry in the M. Nencki Institute of Experimental Biology was created in 1952, then in 1954 the Department of Bio-

chemistry of the Polish Academy of Sciences was set up in Warsaw, which afterwards was transformed into the Institute of Biochemistry and Biophysics of the Polish Academy of Sciences. Much attention was devoted to the educational programme in biochemistry in medical, veterinary and pedagogical departments of universities, through which young teams of biochemists in individual research centres throughout the country were formed. Biochemistry Departments at the universities in Cracow, Warsaw, Wrocław, Poznań, Gdańsk and Lublin were developing rapidly. Thanks to the friendly help of numerous persons from abroad, such as: Prof. Hugo Thorell in Stockholm, Prof. Bruno Straub in Budapest, Prof. Frantisek Šorm in Prague, Prof. Piotr Słonimski in Paris, numerous young biochemists were able to train abroad, even in the period of severe Stalinism. Particular help in the first years after the war was provided by the British Council, the Rockefeller Foundation, the Nobel Institute and other institutions, which aided Poland in raising not only from the losses caused by the war and also from the suppression of our life in the Stalinist period and the period of the early Polish People's Republic.

After Poland joined the International Union of Biochemistry in 1956, the Committee for Biochemistry and Biophysics of the PAS also became the National Committee for Biochemistry which could represent the needs of Polish biochemistry on the international arena. The members of Committee for the Biochemistry and Biophysics of the PAS thought about social representation of biochemistry as well.

Initially, organizationally biochemistry was a section of the Polish Physiological Society, but as a consequence of the rapid development of the team of biochemists in the first decade after the war, on 6 October 1957 during the symposium in Poznań devoted to the biochemistry of the red blood cell, the founding committee of the Polish Biochemical Society was set up. This committee was composed of the following researchers: T. Baranowski,

K. Bassalik, I. Chmielewska, A. Dmochowski, J. Duda, B. Filipowicz, J. Heller, T. Korzybski, J. Meduski, I. Mochnacka, W. Mozołowski, W. Niemierko, J. Opieńska-Blauth, W. Ostrowski, J. Pawełkiewicz, I Reifer, R. W. Schram, B. Skarżyński and Z. Stolzmann. The statutes of the Society were established and upon its registration the 1<sup>st</sup> General Assembly was organized, in which about 200 members participated and during which the Board of the Society was elected: B. Skarżyński – President, I. Chmielewska – Vice-President, J. Meduski – Secretary. In 1960 the Polish Biochemical Society organized the 1st Symposium in Białystok devoted to the respiratory enzymes, the transformation of amino acids and protein isolation from animal tissues. In the meantime the branches of the Polish Biochemical Society in Cracow, Gdańsk, Lublin, Łódź, Poznań, Warsaw and in Wrocław were formed. A little later further branches in Szczecin, Białystok and Olsztyn came into being. At the beginning of the 1960s the number of the members of the Polish Biochemical Society amounted to 600 persons and at that time it undertook a decision to organize the 1st National Congress of Biochemistry which took place between September 4th and 7th, 1963 in Łódź. The debates were organized in 9 sections, in which 650 reports were presented, describing the results of experimental research in the individual centres throughout the country.

In the 1940s the introduction of radioactive isotopes, especially in the U.S.A, into metabolic research, brought about a great deal of information about mechanisms of action of enzymes, hormones, and vitamins, both in the physiological and pathological processes. Hence, in Poland fairly early the introduction of isotopic methods into biochemical research and in clinical chemistry laboratories was pursued. At first at the beginning of 1955 under the auspices of the Scientific Council of the Ministry of Health the Commission for the use of isotopes in biology and medicine chaired by Prof. J. Roguski from Poznań was

set up. Thanks to the help of the above Commission the isotope laboratories in the Institute of Oncology in Warsaw and Gliwice were established. The authorities of the Polish Academy of Sciences together with the Institute of Nuclear Studies organized in the same year the first training course devoted to the use of radioactive isotopes in biological research for biologists and medical doctors, thanks to which a large group of young scientific workers obtained a licence for work with radioactive materials. In 1956 the Commission for the Use of Isotopes in Biology, Medicine, and Agriculture was set up, under the auspices of the Committee of the Polish Academy of Sciences for the Use of Nuclear Energy for Peace Purposes, which until 1963 functioned under the chairmanship of Prof. B. Skarżyński, and in the next years of the author of this information. Thanks to the organisational and financial help of the Commission, relatively well equipped isotope laboratories were created in biochemical units in Poznań, Łódź, Kraków and Lublin. Hence first biochemical papers made using the radioactive isotopes were presented in 1958 during the Conference on Use of the Nuclear Energy in Geneva and at the UNESCO Conference in Paris.

For many years after the war biochemistry did not have its periodical, therefore biological or medical journals, such as e.g. *Acta Physiologica Polonica*, *Polski Tygodnik Lekarski (Polish Medical Weekly)*, *Polskie Archiwum Medycyny Wewnętrznej (Polish Archive of Internal Medicine)*, *Acta Microbiologica Polonica* or *Wiadomości Chemiczne (News in Chemistry)* were used. Sporadically biochemical papers were also published in *Nature*, *Lancet* and in *Biochemical Journal*. Since 1953 papers dealing with biochemistry were published in the *Bulletin of the Polish Academy of Sciences*, in the *Advances in Biochemistry (Postępy Biochemii)* and since 1954 – in *Acta Biochimica Polonica*. From the *Bibliography of Polish Biochemical Papers* prepared by Prof. Janina Kwiatkowska (the Ossoliński's Na-

tional Institute, Polish Academy of Sciences, Wrocław, 1982), covering the years 1945–1975 we learn that first biochemical papers started to appear only in 1945 and were published in *Biochemical Journal and Veterinary Medicine*. In 1946 there were 11 published papers, in 1947–31 and in 1950–47, etc. In the next years the number of published biochemical papers from the university centres in Poznań, Łódź, Gdańsk, Wrocław, Cracow and Warsaw rapidly increased, reaching the level of 100 papers annually in the 1950s and several hundred starting from 1960.

Since 1960 *Advances in Biochemistry (Postępy Biochemii)* has been under the management of the Polish Biochemical Society. Prof. Irena Chmielewska was appointed as the

editor-in-chief of *The Advances of Biochemistry (Postępy Biochemii)*, who was afterwards succeeded by Zofia Lassota and later Zofia Zielińska.

In the second half of the 50s the political situation in Poland improved slightly, so the research plans in biochemistry became broader, formation of teams of biochemists, especially through training abroad, became more intensive. In the 60s Poland became attractive because of the dynamic development of biochemistry in our country. Therefore in 1967 in Warsaw took place the international congress devoted to biochemistry under the auspices of the Federation of European Biochemical Society (3<sup>rd</sup> FEBS Meeting, Warsaw, 4–7 April, 1966).