

The memory of Professor M. Żydowo – the doyen of biochemistry in Gdańsk

The year 2017 is passing and there's no way that it can finish without memory of Professor Mariusz Żydowo – the doyen of biochemistry in Gdańsk. Professor passed away on the 30th of April 2017.

He had lived for 91 years and devoted 70 of them to biochemistry, because early as a student he was interested in physiological chemistry. It is worth noting, that M. Żydowo was the very first student of Doctoral Faculty of the Medical Academy in Gdańsk (then Doctoral Academy). As the twenty years old he enrolled as the first one to the DA and received his student gradebook with the number 1 of the first postwar generation of scholars. From this time, that is from 1945, he bonded with Medical Academy for the rest of his life, although apart from the Doctoral Faculty, he graduated from the Chemistry Faculty at the Technical University of Gdańsk and completed his scientific apprenticeship at the Chemistry Faculty at the University of Cambridge (1958–1959).

The life of Professor is in fact the whole epoch. He was born on the 2nd of July 1925 in Kutno, and at the baptism he was given the following names: Mariusz, Maciej, Ojcomil the son of Zdzisław.

He started his medical studies in 1945 and after graduation he had worked as the assistant and the lecturer from 1948 to 1960. In 1951 he received the medical doctor grade and in 1953 he studied at the Faculty of Biochemistry of the Technical University of Gdańsk. In the academic year 1958/59 he completed one year of scientific apprenticeship at the Biochemistry Faculty of the University of Cambridge. Very early, in 1960 he took the post of the docent. From 1962 to 1965 he had been the manager of the Biological Chemistry Institute (now the Faculty and Institute of Pharmaceutical Biochemistry) of the Pharmaceutical Department and from 1966 he was the manager of the Institute of Biochemistry of the Doctoral Faculty. He had run this institute until 1995, that is until the end of his working career. In 1966 he was appointed as the associate professor, and in 1978 as the full professor. In the period between 1981 and 1982 he was the rector of AMG.

In the Institute of Biochemistry, of which he was the manager, together with his team he worked in the field of enzymology. He isolated AMP-deaminase and malic enzyme from animal and human tissues. He researched the catalytic and regulatory properties of these enzymes, especially in ectothermic and homothermic organisms. M. Żydowo and his team were successful in discovering the new regulatory effect during which some membrane lipids activate the AMP-deaminase isolated from a heart. The next achievement was to show that the mitochondrial isoform NADP of dependent malic enzyme has different catalytic and regulatory properties from the isoform isolated from cell cytoplasm of liver, brain and several other tissues. He also studied the metabolism of nucleotides in animal and human tissues. He found that the metabolism of adenine and pyrimidine nucleotides in human heart differ from those in several animal species. He conducted the experiments on the tissue preparations from hearts of cardiac patients and on the cells isolated from animal and human hearts. This research showed how to improve the protection of heart muscle against the metabolic effects of ischaemia, mainly against lowering of cell energy potential and decrease of ATP concentration.

The above mentioned issues are the most important ones in the achievements of Professor M. Żydowo, but his science work covers a very wide scope and it is also very comprehensive. Among dozens of articles it is worth noting their broad cross-section. Starting with the ones that are strictly biochemical and which were published in, for example, *Acta Biochemica* and going through the historical and ethical ones in *Annales*. Apart from the publications on AMP-deaminase, malic enzyme, metabolism of nucleotides, lipogenesis, bioenergetics and other biochemical issues, Professor addressed the topics which humanized the scientific life. He worked on “The ethics of science and education”, he discussed “The ethical problems resulting from the progress in science”, “The reception of the ‘biochemistry’ term”, he analyzed “The genetical engineering” and also “The history of medicine education in Gdańsk and in Polish land”.

The scientific path of M. Żydowo had been marked by uniqueness from the start to the end. He began as the scholar with number 1 of his student gradebook (although in the alphabet his name is at the end), he published in the world periodical journals although his work and plans were restricted by PRL communist system, he was chosen as the AMG Rector in the first democratic elections and soon the PRL government introduced the martial law and he was forced to resign from this function. He was also the first graduate of AMG and was honoured with the distinction of Doctor Honoris Causa. He was the chairman of Gdańsk department of Polish Biochemistry Society (1962–1968) and the vice-chairman of the Biochemistry and Biophysics Commission of the Polish Academy of Sci-

ences (1976–1980). Since 1959 he had been the member of the Biochemical Society, since 1980 – the member of the Physiological Studies Commission of the Polish Academy of Sciences. He was very active in the Polish Academy of Learning, he was the conceiver and organizer of the didactic conferences for the managers of biochemistry institutes of doctoral departments, the organizer and the first chairman of the Gdańsk Academic Society, he was the member of the Editorial Committee of “Acta Biochimica Polonica”. That is why this periodical bids farewell with this memoir to Professor Mariusz Żydowo who passed away in 2017 and who was the great authority. The accolades and distinctions which include the Officer’s Cross of the Order of Polonia Restituta (1995), the title of Doctor Honoris Causa of the Medical Academy in Gdańsk (1995), the Scientific Accolade of Jan Heweliusz (1998), the Medal of Mściwoj II (2000), “Medicus Nobilis” (2011) and many others support the unquestionable position of Professor, but in fact they can’t reflect the richness of his mind, spirit and intellect.

His assistants, students and co-workers have emphasized in unison that he was the raw model of the scientist, educator and citizen. To the very end he had been true to his views, independent and honest in his judgement and that is why he has been greatly respected in the scientific community to this day.

SOURCES AND LITERATURE:

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