



In memory of Professor Maciej Żurkowski

Professor Maciej Żurkowski passed away in October 2024.

He graduated from the Faculty of Zootechnics at the Warsaw University of Life Sciences (SGGW) in 1956, earning a Master of Science in Zootechnics. In the same year, he began working as a researcher at the Department of Experimental Animal Breeding of the Polish Academy of Sciences (which in 1969 became the Institute of Genetics and Animal Breeding PAS and is now known as the Institute of Genetics and Animal Biotechnology PAS). Professor Żurkowski worked at the Institute for 47 years (until 2003), earning successive academic degrees and titles. In 1963, he received his Doctorate in Agricultural Sciences, and in 1969 he obtained a habilitation in



Agricultural Sciences from the Faculty of Zootechnics at SGGW in Warsaw. In 1975, he was awarded the title of Associate Professor, and in 1985, Full Professor. He was a Full Member of the Polish Academy of Sciences.

In the early stages of his scientific career, Professor Żurkowski conducted research in immunogenetics, focusing on methodologies for obtaining monospecific immune sera to identify cattle erythrocyte antigens. The results of these studies laid the foundation for research into cattle blood groups. Identified blood groups were used as genetic markers to characterize population diversity and as indicators for eliminating undesirable genes through selective breeding. These studies also played a significant role in verifying cattle lineage (pedigree books).

In 1969, Professor Żurkowski became the head of the Department of Animal Immunogenetics at the Institute of Genetics and Animal Breeding PAS. Together with his team, he conducted studies on the genetic polymorphism of structural and enzymatic blood proteins in livestock. The genetic information obtained allowed the characterization of gene pools typical for specific breeds or animal lines, including native breeds such as the Polish Konik horse, Złotnicka spotted pig, and Wrzosówka sheep. During this period, Professor Żurkowski and his team undertook research to verify the pedigrees of purebred Arabian and Thoroughbred horses based on blood protein polymorphism studies. The findings formed the basis for confirming lineage and entries in breeding registries, essential for both national breeding and horse auctions.

In the 1970s and 1980s, through Professor Żurkowski's initiative, his team expanded scientific collaboration with other institutions, such as the National Research Institute of Animal Production and the Faculties of Zootechnics at Agricultural Academies (now Universities of Life Sciences). Collaborative research focused on the polymorphism of blood groups and blood proteins in livestock (including poultry) of all breeds bred in Poland.

In the early 1990s, Professor Żurkowski and his team began molecular studies, coinciding with significant advancements in DNA polymorphism research in renowned laboratories worldwide. These studies included identifying mutation in the RYR1 gene of pigs bred in Poland, which allowed the determination of genetic susceptibility to stress in these breeds. Similarly, research on the BLAD gene mutation in cattle helped determine the prevalence of a genetically conditioned immunodeficiency syndrome in the Polish cattle population, which increased calf mortality in their first year.

The next step in understanding livestock genomes involved mapping genes in pigs associated with carcass quality traits. Professor Żurkowski initiated Poland's first research project on this topic, collaborating with teams from the National Research Institute of Animal Production and the University of Life Sciences in Poznań.

One of Professor Żurkowski's final research endeavors was assessing biodiversity and protecting genetic resources in livestock and wild animals based on microsatellite DNA sequence polymorphism studies.

Professor Żurkowski was also a pioneer in establishing collaborations with international scientific institutions. Through his involvement with the International Society for Animal Genetics, where the Department of Animal Immunogenetics was an institutional member, he conducted research with teams from countries such as the Czech Republic, Germany, Sweden, and France.

Professor Żurkowski left behind a remarkable scientific legacy and indelible marks in the hearts of his colleagues. Throughout his scientific career, he demonstrated exceptional passion, perseverance, and insatiable curiosity. He was not only a brilliant mind but also a person of great empathy and understanding. For many employees of the Institute, he was not only a supervisor but also an inspiration, showing how to dedicate oneself fully to science and work every day to improve the world around us.

Professor Żurkowski supervised 10 master's theses, mentored 13 doctoral dissertations, and reviewed 29 doctoral theses, 15 habilitation applications, and 10 professorial title nominations. He was a member of the Scientific Councils and Committees of numerous scientific institutions and a recipient of awards from the Scientific Secretary of PAS and the Minister of Agriculture and Food Economy.

Professor Żurkowski's scientific achievements, organizational skills, and openness to collaboration were the foundation for his appointments as Deputy Director of the Institute of Genetics and Animal Breeding PAS for General Affairs (1970-1972) and later as the Director of the Institute (1972-1987). Furthermore, between 1975 and 1987, he worked as a professor at the Institute of Biology at the Higher Pedagogical School in Kielce, initiating research into the polymorphism of blood proteins in livestock at that institution. In 1987, he was appointed Deputy Secretary of the Division of Agricultural and Forestry Sciences of PAS, and in 1995, he became the head of the Research Station for Organic Farming and Conservation Breeding of Animals PAS in Popielno, Masuria, a position he held until retiring in 2003.

As director, Professor Żurkowski led the Institute of Genetics and Animal Breeding PAS in Jastrzębiec with unparalleled vision and dedication. Thanks to his efforts and wise decisions, the Institute achieved outstanding success in animal genetics. During his tenure, research in immunogenetics flourished. He always believed in the potential of his employees, encouraging them to explore new research avenues aligned with the latest global scientific trends. For him, science was not merely a career but a calling that guided his life.

As we bid farewell to Professor Żurkowski, we remember his exceptional personality, kindness, and ability to share knowledge. He was a person who could listen and understand others, never refusing help or support. Through his work and dedication, he contributed to the Institute's research development and left an unforgettable mark on its community.

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