

Pro memoria

In Memory of Professor Przemysław Myjak, MD, PhD*

Beata SZOSTAKOWSKA

Division of Tropical Parasitology, Department of Tropical Medicine and Parasitology - National Centre for Tropical Medicine, Medical University of Gdańsk, Poland

E-mail: beata.szostakowska@gumed.edu.pl



Figure 1. Phot. Beata Biernat

Professor Przemysław Myjak was born on January 26, 1940, in Cekanów in Płock Voivodeship. In 1946, he and his family moved to Toruń where he completed primary school and then attended I Liceum Ogólnokształcące im. M. Kopernika (M. Copernicus High School) – an institution with a history dating back to the 16th century. In 1958, he began his biological studies at the Faculty of Biology and Earth Sciences at

Nicolaus Copernicus University in Toruń, where, on June 6, 1963, he obtained a master's degree in biology. In the same year, he started working at the then Institute of Maritime Medicine in Gdańsk, in the Laboratory of Protozoology and Helminthology in the Department of Parasitology. There he progressed through all the professional stages of the department – starting as an intern, then becoming an assistant, senior assistant, assistant professor, and, finally, head of the Laboratory of Protozoology and Helminthology, and ultimately becoming the head of the Department of Tropical Parasitology.

From 1984 to 1999, Professor P. Myjak was also employed at the Provincial Outpatient Clinic for Tropical and Parasitic Diseases in Gdynia, which belonged to the Provincial Integrated Hospital in Gdańsk. There, he focused on the diagnosis of parasitic diseases.

In 1972, the Council of the Faculty of Natural Sciences at the University of Wrocław awarded him a Doctor of Natural Sciences degree based on his dissertation entitled “The Application of Solid Substrates in Research on Human Intestinal Protozoa”. The dissertation was supervised by Professor Jadwiga Lachmajer. In February 1997, based on his overall scientific achievements and the submission of a scientific dissertation entitled “Detection of Anti-*Entamoeba histolytica* Antibodies Using Different Antigens and Immunodiagnostic Tests in Individuals Residing in Hot Climate Zone”, he earned a Doctor Habilitatus in Medical Sciences degree in the field of Medicine – Parasitology from the Faculty of Medicine at the K. Marcinkowski Medical University in Poznań. On April 1, 1998, the Minister of Health appointed him to the position of associate professor at the Institute of Maritime and Tropical Medicine (IMTM) in

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Gdynia. On September 21, 2002, the Minister of Health appointed him director of IMTM for a period of 6 months, during which time he restructured the institute before its planned incorporation into the structures of the Medical University of Gdańsk (MUG).

On October 1, 2003, IMTM was merged with MUG, and Professor P. Myjak was employed as an associate professor at the institution. At the same time, he was entrusted with the positions of Head of the Department of Tropical Medicine and Parasitology and, within this department, Head of the Department of Tropical Parasitology. From 2005 to 2008, he served as the director of the Interdepartmental IMTM at MUG. He was awarded the title of full professor in 2009, and retired on January 1, 2012.

Scientific Achievements

Professor P. Myjak had a broad range of scientific interests. His research focused on intestinal protozoa (such as *Entamoeba histolytica* and other species), *Cryptosporidium* spp., *Giardia intestinalis*, urogenital flagellates (*Trichomonas vaginalis*), amphizoic protozoa (*Naegleria* spp., *Acanthamoeba* spp.), tropical protozoa (particularly *Plasmodium* spp.), *Toxoplasma gondii*, as well as helminths, including the zoonotic nematodes (Anisakidae) of marine fish, and tapeworms of the *Echinococcus* genus.



Figure 2. Phot. Beata Biernat

Professor P. Myjak conducted studies on the biology of these organisms (e.g., the pathogenicity of amoebic parasites, the genotyping of *Entamoeba histolytica*/*E. dispar*, and the drug resistance in *E. histolytica*, *Trichomonas vaginalis*, *Plasmodium falciparum*) and their epidemiological aspects (primarily investigating the occurrence of selected parasites in the environment), as well as the implementation of modern diagnostic methods for various parasitic diseases.

He was a pioneer and leader in Poland in the application of molecular methods based on DNA analysis in parasitological research. As early as the mid-1990s, he introduced these techniques for both scientific and diagnostic investigations conducted at the department he headed. Thanks to his efforts, molecular diagnostics for tropical parasitic diseases (such as amoebiasis, leishmaniasis and malaria) as well as cystic- and alveolar echinococcoses have been incorporated into the diagnosis of parasitic diseases in Poland. He was the first parasitologist in the country to initiate research into the utility of *Toxoplasma gondii* recombinant antigens for the serodiagnosis of toxoplasmosis, which he carried out in collaboration with biotechnologists from Gdańsk University of Technology.

However, even before the possibility of DNA analysis in scientific research and diagnostics emerged, Professor P. Myjak had been developing and implementing, what was for the time, innovative methods for the taxonomic studies of *Entamoeba histolytica* sensu lato, and serological diagnosis of amoebiasis. He also developed serodiagnostic methods for malaria and leishmaniasis (using the indirect immunofluorescence method) for routine use at the Department of Tropical Parasitology, IMTM. It is worth noting that for many years, serological tests were the only means of determining past and current infections caused by these protozoa.

Professor P. Myjak collaborated with scientists from numerous research institutions both in Poland and abroad, including medical universities in Poznań, Warsaw, and Wrocław; Humboldt University in Berlin; the Centers for Disease Control and Prevention (CDC) in Atlanta; and Johns Hopkins University in Baltimore, USA. Additionally, he collaborated with several research and diagnostic institutions in France, Portugal, Italy, Denmark, and even in Angola (Mission Hospital in Kifangondo).

From 1995 to 2015, Professor P. Myjak served as the head of five national research grants funded by

the National Science Centre and the Ministry of Science and Higher Education. He was also the principal investigator in ten projects and the main executor in two international grants, funded by the Marie Skłodowska-Curie Polish-American Joint Fund and NATO. He conducted numerous expert analyses, primarily commissioned and funded by the Ministry of Science and Higher Education. He authored over 100 publications and 10 scientific monographs, as well as providing photographs for use in academic textbooks and parasitology atlases.

Significant Organizational Activities

Professor P. Myjak was a member of the Polish Parasitological Society from 1963, serving as the chairman of the Gdańsk Branch from 1999 to 2002. In 2016, he became an honorary member of the society.

Furthermore, from 2001, he was a member of the Collegium of Laboratory Medicine in Poland. From 1998 to 2006, he served as vice-chairman of the Committee of Parasitology at the Polish Academy of Sciences, where, from 1999 to 2006, he also chaired the Molecular Parasitology Team.

Teaching Activities

Professor P. Myjak conducted extensive teaching activities, educating generations of medical doctors, biologists, pharmacists, veterinary doctors, laboratory diagnosticians, and medical analytics technicians in the field of parasitic biology and laboratory diagnostics. After his institute was integrated into the structures of the Gdańsk Medical University, he conducted lectures on medical parasitology for students of medicine, medical analytics, and other related fields, utilizing materials he had authored himself.

He supervised 5 doctoral dissertations, 10 master's theses, and 4 bachelor's theses, as well as providing guidance for two habilitations.

He reviewed academic work for professorship evaluations, doctoral dissertations, master's theses, and scientific grants.

Unfortunately, despite his strong commitment, his dream of establishing a specialization within parasitology for laboratory diagnosticians did not come to fruition.

However, from its establishment up until 2017, he served as head of the Polish section of e-PARASITimage, which operated within the

international e-MEDICINimage program. This program offers online, continuous training in the field of medical parasitology for diagnosticians, physicians, and other interested individuals. The program continues to be available to all interested parties.

Professor P. Myjak was the recipient of numerous individual and collective scientific awards, including, in 2007, the Konstancy Janicki Medal, the highest distinction awarded by the Executive Board of the Polish Parasitological Society for contributions to Polish parasitology.

Furthermore, he has received two state decorations: The Gold Cross of Merit – 1999; The Knight's Cross of the Order of Polonia Restituta – 2009.



Figure 3. Phot. Beata Biernat

Professor P. Myjak was an undisputed authority in the field of parasitology, always highly respected, valued, and well-liked by his subordinates. He had the ability to set research directions and encourage his subordinate researchers to engage in intensive research work. He provided us with the space to freely pursue our own paths of scientific development. He encouraged us to participate in national and international conferences, to meet other scientists there and to establish research collaborations with them. He was eager for us to receive training abroad. And we, for our part, wanted to prove to him that he was right to believe in us, that we were capable and up to the task. Thus, under his guidance, in the early 2000s we initiated

research on the detection of DNA from various parasites in environmental samples. And because the Professor instilled in us a passion for further exploration and for the implementation of emerging methods, we continue these endeavors, becoming pioneers among scientists from different parts of the world working on similar issues.

When Professor P. Myjak stepped down from his position as the head of the Department in 2012, he remained with us until the completion of the projects in which he was involved. He officially retired after another two years, but he continued to take a keen interest in the activities of the department until the end of his life; and we gladly engaged in conversations with him about many topics. The Professor's health declined steadily, and he frequently visited the clinic at IMTM for consultations. Whenever he felt well enough, he would stop by the department, if only for a brief conversation. The fact that, despite his constant requests, nobody wanted to tidy up the small bits and pieces left behind in his office speaks volumes about how much he was liked and respected by us. His room remained like a sanctuary to us, permeated with his benevolent spirit.

Professor P. Myjak was a highly regarded and esteemed scholar, not only among our circle but throughout the academic community and also among parasitologists in Poland. He was known for his efforts to work harmoniously, and sought to avoid unnecessary conflict as long as possible.

Few people are aware that Professor P. Myjak was also one of Poland's top experts in the identification of cap fungi. For 30 years, he co-organized, together with the Voivodeship Sanitary and Epidemiological Station in Gdańsk, an annual exhibitions of edible and poisonous mushrooms in various cities of the province. He co-authored the script and served as a scientific consultant on the film "The Most Important Edible and Poisonous Mushrooms", produced in the mid-1960s by the

Miniatur Filmowych studio in Warsaw. The film was distributed by the education departments of the sanitary and epidemiological stations.

Furthermore, Professor P. Myjak was an avid mushroom collector, and as long as his health allowed, his favorite way to spend vacations was by staying in Mazury and going on mushroom-picking expeditions. He knew of places where he could find prized mushrooms such as porcini and chanterelles, which he would then dry in bulk or use to make excellent preserves that he gladly shared on various occasions. For example, his "herring à la Myjak" became famous: a recipe resembling herring in cream and onions, but instead of herring fillets – as he did not like or eat fish – he used blanched, salted, and desalted strips of yellow knight mushrooms for the dish.

Cap mushrooms were his great hobby, but as he had a passion for science in his genes, he also conducted scientific research on them. This included a genetic analysis of *Tricholoma equestre* (yellow knight mushrooms), sensu lato, a species that has been found to cause rhabdomyolysis in humans, as was discovered in studies conducted in France. Unfortunately, his work on a publication dedicated to the genetic diversity of *T. equestre* s.l. in northern Poland was interrupted by his passing. Professor P. Myjak also developed a molecular test for identifying poisonous mushrooms.

His passion for teaching accompanied him until the end. When I visited him last summer, he handed me a VHS tape containing the aforementioned film about mushrooms, asking me to find a facility specializing in the digitization of such films. He intended to prepare a presentation on the topic and deliver it during his stay at a rehabilitation center where he had been going every autumn for several years. Unfortunately, he did not have the opportunity to fulfill this plan as he passed away on the evening of November 30, 2022.