PROFESSOR ZBIGNIEW J. JARA—A RENAISSANCE MAN OF THE THIRD MILLENNIUM

Elżbieta LONC

Division of General Parasitology, University of Wrocław, Poland

This year, Professor Dr habil. Zbigniew Juliusz Jara—known to his peers for his charisma, creativity, holistic interests, and his special attitude to people and scientific problems—celebrated the 85th anniversary of his birthday. He was born on 2 January 1919 in Sanok, Poland in a family with educational traditions, as the second son (of four¹) of Wilchelmina Jankiewicz and Władysław Jara. This talented educator, mentor, and supervisor of many generations of Wrocław City veterinarians and biologists² started his personal education in the Elementary School in the village of Milcza, near Rymanów (in the former Lyov Voivodship). He subsequently attended a humanities-oriented high school at Sanok, In 1936, after graduation and successful completion of the matriculation exams, he started his university education at Lvov. After three years, he became a volunteer assistant in the Division of Physiological Chemistry, supervised by Prof. Dr Damian Moraczewski (academic year of 1938/39). During the World War II, living in the province called by Germans "Generalgouvernement", he took part in secret underground education in Sanok and Krosno. He also served as a member of the underground resistance movements SZP and ZWZ-AK, running a contact post of the intelligence division. In 1942, when the Gestapo discovered the conspiracy network, he was forced to flee to Lyoy. There, until June 1944, he continued his higher education in State Veterinary Courses (Staatliche Tierärztliche Fachkurse) working at the same time as a technical assistant at the Division of General Chemistry headed by Prof. Moraczewski. Before the end of the war he was taken a hostage³ (for 24 days) in the

¹ Brothers: Wiesław Jara, MSc (1917–1996); Czesław Jara (1921–1941) was one of the first murdered prisoners (No. 387) of the Nazi concentration camp Auschwitz; Stanisław Jara (1923) is a retired doctor of veterinary medicine.

Sons: twins Piotr and Pawel (1950) and Adam (1952)—technical university graduates. Adam after being detained

Sons: twins Piotr and Paweł (1950) and Adam (1952)—technical university graduates. Adam, after being detained for 6 months during the Martial Law period in Poland was forcedly expelled from the Polish People's Republic because of his underground activities and "Solidarity" membership. He currently lives in Clermont Ferrand (Francja). Professor Jara is the grandfather of four grandsons and one granddaughter.

² Professor Zbigniew Jara has been a supervisor of seven PhD students and 30 MSc students. He evaluated 28 PhD theses, nine DSc theses, and seven Titular Professor applications.

³ Hundreds of Poles were taken hostage by Nazis each month and if any Germans were killed by the resistance forces—the Nazis retaliated by executing hostages in the proportion of 100: 1 (hundred Poles for each German).

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Nazi concentration camp Kraków-Płaszów (depicted in the movie *Schindler's list*). When the Red Army liberated Kraków he, together with Zygmunt Evy, became the secretary of the newly organised Veterinary College at the Faculty of Agriculture, Jagiellonian University.

In July 1944, Professor Jara completed the one-month post-graduation practical placement in the Municipal Abattoir at Kraków, later becoming a veterinarian in the same enterprise.

When he moved to Wrocław, in the formerly German Lower Silesia, he continued his interest in academic issues, becoming a member of the culture-educational committee for organising the Wrocław University and the Wrocław Polytechnic, based on the remnants of Kaiser Wilhelm Universität and Technische Hochschule, respectively. Starting in July 1945 he worked at the Division of Limnology and Fisheries supervised by Prof. Dr Marian Stangenberg. His basic duties included teaching fish diseases and hygiene. His teaching focused on the problems related to cyprinid fishponds and salmonid hatcheries.



After nostrification of his wartime diploma of veterinary surgeon, he went back to university, studying biology from 1948 to 1952. He graduated in 1952, receiving a diploma of Master of Science in Zoology and Comparative Anatomy. Concurrently to his biological studies he had been pursuing his interests in veterinary medicine. In 1952 he defended a dissertation entitled "The blood clotting system of Carp, Cyprinus carpio L.", thus earning the title of Doctor of Veterinary Medicine. He carried out the experiments for his doctoral degree, at the Division of Physio-pathology, Wrocław Medical University, under the supervision of Prof. Dr Hugo Kowalczyk. After his doctoral defence he continued his work—as an assistant professor in the Division of Epizootiology, Agricultural University in Wrocław (Head: Prof. Dr Tadeusz Sobiech). There, he taught "Fish Diseases" for students of the Veterinary Faculty. In the Division of Physio-pathology of the Medical University, he carried out studies for his DSc ("habilitation") thesis entitled "Thrombogenesis in the blood of carp (Cyprinus carpio L.)". As an associate professor he organised and later managed the Division of Ichthyopathology (Agricultural University). From 1963 to 1966, he was a Deputy Dean for students' matters at the Veterinary Faculty. In 1972 he earned the title of Full Professor. In 1976 he became Head of the Division of Animal Physiology, Zoological Institute, University of Wrocław, where he worked until his retirement in 1990.

In professional terms of Professor Zbigniew Jara has been linked to his scientific speciality of ichthyopathology. The history of this long and fruitful parasitological career begun in the first post-war academic year in the earlier-mentioned Division of Limnology and Fisheries. His DSc studies on the process of thrombogenesis of carp enabled him to organise and supervise (since 1961) the Division of Ichthyopathology. This division was the first unit of this specialty in Poland. Before the war, fish diseases were the domain of field veterinarians and not scientists. The scientific foundations of Polish ichthyopathology were laid by Professor Zbigniew Jara, in association with Professor Janina Janiszewska⁴ (Zoological Institute, Univ. Wrocław) and Professor Eugeniusz Grabda (analogous Division of Ichthyopathology, Agricultural-Technical University of Olsztyn and later Agricultural University of Szczecin.) The basis for this well-known Wrocław unit of fish diseases was a significant practical knowledge of Professor Jara—in diagnosing, preventing, and fighting fish diseases—acquired in the years 1952-1963 in cooperation with Lower-Silesian fish farms. Prof Jara was praised for his numerous professional reports for legal authorities related to various fish mortalities in ponds and open waters and also cases of anthropogenic pollution. The results of a number of fish mortalities were published and then practically used by veterinarians in fish culture. These activities and Profesor Jara's undisputed authority resulted in his inclusion on the list of experts of the European Section of Freshwater Fisheries FAO-EIFAC.

During the 1950s and 1960s, many scientific activities arose from the collaboration with the research centres in Olsztyn and Szczecin. Professor Jara engaged in joint studies on parasitic copepods of the genus *Achtheres*, reviewed many research papers, including doctoral and habilitation dissertations, supervised doctoral theses, and provided guidance in "habilitation" processes. He also published many valuable papers related to fish health, physiology, and parasitology (see Appendix). His scientific writings comprise a total of 180 publications, including 52 original works, many popular-science papers, chronicles of the scientific life, reviews of newly-released books, etc. His studies on pathology and physiology of fishes focused on issues related to blood-clotting mechanisms in fishes, cellular defence mechanisms of fish against toxicants, and finally interactions between the host and a parasite. He is also an author or co-author of textbooks on tuberculosis in poikilothermic animals, structural and functional symmetry and asymmetry of animals, and animal physiology.

Of great importance are also the results of his cooperation with the Institute of Organic Industry at Pszczyna on the pesticide toxicity to fishes. Professor Jara was also involved in teaching courses on fish-culture hygiene, on both fish farms as well as aquaria in zoological gardens. Another important point in his career was his editorial work for PWRiL and PWN—important Polish scientific publishers.

⁴ Professor Janina Janiszewska organized and managed (1962–1970) the Division of Parasitology, University of Wrocław.

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The principal outcome of this activity and of the cooperation between Wrocław and Szczecin research centres was the voluminous, modern textbook *Ichthyopathology*. The work on this meaningful book had been initiated by Professor Andrzej Chodyniecki of Szczecin and Prof Jara had been designated the principal reviewer/advisor in the editorial process. The situation changed after the sudden death of Professor Chodyniecki in 1984. The unfinished manuscript was suspended in its mid-way to readers. Prof Jara decided to continue the work of his friend and colleague. He re-edited the manuscript, enriching it with his own decades-long expertise in the field of fish diseases. Younger colleagues from the Agricultural University of Szczecin helped in the editorial process and finally the book was published by the Publishing Office of the Agricultural University of Wrocław. The cooperation with the Division of Fish Diseases in Szczecin has been continued to date. For a number of years, Professor Jara has been an active member of the Editorial Board of an international scientific journal Acta Ichthyologica et Piscatoria, published in Szczecin. Another important point in the cooperation was the conferral of an honorary doctorate to Dr Zbigniew Kabata of Pacific Biological Station, Nanaimo, BC, Canada. Professor Jara authored the text of the laudatio.

The biographies of Professor Jara and Professor Kabata share many similarities during and after the war, their colourful exploits could have inspired many novels. Both of them published volumes of poetry in addition to scientific papers. Moreover, Professor Jara published over 30 popular texts in local periodicals in Wrocław and in Sanok. His musical talent should not be overlooked. He has played violin, since childhood and has performed either solo or with other musicians.

Professor Jara's warmth and humanity find expression not only in meetings with his readers but also at scientific meetings. His lectures have become legendary, especially those on the symmetry in the animal kingdom given in the Czekanowski Hall of the monumental Collegium Anthropologicum at Thursday meetings of the Wrocław Society for Scientific Research. Professor Jara joined that society in 1967 and since 1990, has been the Chairman of the Biological Sciences Division. He held offices in other scientific societies, such as the Polish Zoological Society (Secretary General) and the Polish Parasitological Society (for many years chairman of the Wrocław Branch). He is still an active member of the Nicolaus Copernicus Naturalists' Society. He has been a member of the research councils of the Institute of Parasitology of the Polish Academy of Sciences in Warsaw and of the Wrocław Zoological Garden.

Professor Jara's charismatic personality has earned him his rightful leading place in Polish parasitology. From 1970 to 1987 he was editor-in-chief of *Wiadomości Parazytologiczne*—the journal of the Polish Parasitological Society⁵ This well-known

⁵ Złotorzycka J., 1990. Profesor Zbigniew Jara – sylwetka i działalność. [Professor Zbigniew Jara—his personality and activities.] Wiadomości Parazytologiczne **36** (4): 145–148.

Lonc E., 2004. Profesor Zbigniew Juliusz Jara – parazytolog i redaktor Wiadomości Parazytologicznych. [Professor Zbigniew Juliusz Jara—parasitologist and editor of Wiadomości Parazytologiczne.] Wiadomości Parazytologiczne **50** (1): 65–67.

journal of decades-long tradition has been distributed not only in Poland but in many other countries. Currently Professor Jara is one of the editors of *Scientific Seminars—Annals of the Wrocław Society for Scientific Research* and the Chairman of the Editorial Board of *Zoologica Poloniae*.

In the present-day period of narrow scientific specialisations (and often narrowing mental horizons) the enduring value of Professor Jara's humanistic intellectual versatility has been recognised by numerous awards, distinctions, and biographies.

Appendix

Selected ichthyoparasitological papers of Professor Jara:

- Kozikowska Z., **Jara Z.**, Grabda E., 1956. *Achtheres percarum* Nordm. u okonia i sandacza. [*Achtheres percarum* Nordm. in perch and zander.] Zoologica Poloniae **7**: 219–267.
- **Jara Z.**, 1957. O budowie i funkcji tzw. organu podniebiennego u karpia (*Cyprinus carpio* L.). [On the structure and function of so-called palatal organ in carp, *Cyprinus carpio* L.] Przegląd Zoologiczny **1**: 176–178.
- Jara Z., 1957. The blood coagulation system in carp (*Cyprinus carpio L.*). Zoologica Poloniae 8: 113–129.
- Jara Z., 1963. O niektórych konsekwencjach przystosowania ryb do życia w środowisku wodnym. [About some consequences of fish adaptations to aquatic environment.] Przegląd Zoologiczny 7: 207–218.
- **Jara Z.,** 1965. Niektóre zagadnienia z zakresu stosunków pasożyt–żywiciel w chorobach pasożytniczych ryb. [Selected problems of the host–parasite relationships.] Wiadomości Parazytologiczne **11**: 330–339.
- **Jara Z.,** Olech W., Witała B., 1977. Localisation of alkaline and acid phosphatase activity in the intestine of healthy breams (*Abramis brama* L.) and those infected with plerocercoid of tapeworm *Ligula intestinalis* (Linné, 1758). Acta Histochemica **58**: 232–241.
- **Jara Z.,** Markiewicz F., 1980. Occurrence of virus inflammation of the swimbladder (aerocystitis) in the carp (*Cyprinus carpio* L.) bred in Poland in the years 1962–1974. Acta Hydrobiologica **22**: 101–114.
- Jara Z., Szerow D., 1981. Zmiany histopatologiczne i lokalizacja tasiemca Khawa sinensis w jelicie karpia (Cyprinus carpio L.). [Histopathological changes and localisation of tapeworm Khawa sinensis in the intestine of carp, Cyprinus carpio L.] Wiadomości Parazytologiczne 27: 695–703.
- Jara Z., Kozubek Z., Poloczek-Adamowicz A., Kamyk B., 1984. Aktywność fosfatazy kwaśnej w narządach wewnętrznych karpi (*Cyprinus carpio* L.) zarażonych tasiemcami *Khawia sinensis* (Hsű, 1935) i *Bothriocephalus gowkongensis* (Yeh, 1955). [Activity of acid phosphatase in the internal organs of carp (*Cyprinus carpio* L.) infected with tapeworm *Khawia sinensis* (Hsű, 1935) and *Bothriocephalus gowkongensis* (Yeh, 1955).] Wiadomości Parazytologiczne 30: 207–221.
- **Jara Z.,** 1988. Niektóre aspekty wydalania i osmoregulacji u ryb. [Selected aspects of excretion and osmoregulation in fishes.] Przegląd Zoologiczny **32**: 357–365.
- **Jara Z.,** 1989/1990. The effect of carbendazyme on fish. Summing up the results of toxicological, anatomopathological and enzymatic studies. Zoologica Poloniae **36**: 147–155.