

## Microbiologist, Philosopher, Mentor

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Władysław Kunicki-Goldfinger devoted his professional career to studying the smallest organisms. Yet while scrutinizing the world under the microscope, he maintained extremely broad perspectives about the world at large. Of himself he used to say modestly: "I am a so-called scientist"

A considerable part of Władysław Jerzy Henryk Kunicki-Goldfinger's life was spent on the move. Born into a well-known intellectual family in Kraków in 1916, he spent his childhood and early youth in Lublin, living with his uncle – a freethinking activist of the Polish Socialist Party. He next returned to Kraków, where he studied at the Philosophy Department of Jagiellonian University. Here he came into contact with several outstanding naturalists and ultimately chose microbiology for the topic of his master's degree.

While at university, he had already begun to engage in sociopolitical activity alongside his scientific work. He even faced the threat of expulsion from the university for his membership in the Leftist Youth Legion, and then the Polish Socialist Party. The scientific career he next began to pursue at the Agricultural Microbiology Department was then interrupted by WWII.

The young research assistant moved to Lwów (now Lviv in Ukraine), where he was arrested in 1940. He was transported to a labor camp, where he was forced to work as a woodcutter, stove-fitter, and ultimately a bacteriologist at the camp infirmary. After the Soviet amnesty for Poles, he managed to join the newly-formed Polish army and followed its entire route from the Soviet Union through Iran to the West. After the war, he returned to Poland in 1947 and began working at the Veterinary Department of Maria Curie-Skłodowska University in Lublin.

From that moment onward, Kunicki-Goldfinger's scientific career took off. He earned his doctorate in 1948, and presented his D.Sc. dissertation (habilitation) soon thereafter, in 1950. In the same year he set up the Microbiology Center at the Plant Physiology Department, and subsequently established an independent Microbiology Department. In 1955 he moved to Wrocław, where he

founded the General Microbiology Department at Wrocław University followed by the Bacterial Genetics Center at the Hirszfeld Institute of Immunology and Experimental Therapy, Polish Academy of Sciences, in 1957. The professor's restless heart and his passion led him to move yet again 4 years later: This time to Warsaw, where he would remain the longest and enjoy his most productive period. He set up and directed the Institute of Microbiology under Warsaw University's Biology Department.

As he moved through his various workplaces, the Professor always left at least one qualified researcher behind to continue the work that had been started.

The Professor's achievements as a microbiologist are vast. He authored or co-authored some 200 papers, books, original articles and overviews in various fields of microbiology: general, environmental, and veterinary microbiology as well as bacterial genetics. It is worth pointing out that he always actively opposed the once-predominant Lysenko doctrine (maintaining that acquired characteristics can be inherited). He published a cycle of 21 papers in Polish and foreign journals under the joint title "The Mechanism of Conjugation and Recombination in Bacteria." The Professor postulated that during conjugation DNA is transferred in single stranded form and that subsequent postconjugational recombination involves an intermediate form, consisting two recipient strands and one donor DNA strand. This work was at the forefront of current interests in genetics at that time, and it seems that it was only due to the so-called Iron Curtain that its significance was not properly appreciated.

## Microbiology and beyond

The Professor was also mindful of the need to put scientific discoveries to practical use. He comprehensively developed the field of environmental microbiology, which aims to assist industry - such as by developing the scientific underpinnings for biological waste treatment.

However, the Professor's interests ranged significantly beyond microbiology. He published popular-science papers and articles on theoretical biology and on the history of science. He was a naturalist with a humanist bent. In the 1970s he initiated a series of seminars on Evolutionary and Theoretical Biology. He also took part in the work of the Philosophy of Science section of the Polish Philosophical Society as well as the Committee on Evolutionary and Theoretical Biology of the Polish Academy of Sciences.

The Professor was elected to become a corresponding member of the Polish Academy of Sciences in 1965, and a full member in 1980. He was an honorary member of the Polish Society of Microbiologists, the Polish Genetic Society, and a member of the British Royal Medical Society and the American Society of Geneticists.

Despite his numerous, highly esteemed achievements, the Professor always claimed that he had gotten involved in science by chance, and it seems that the driving force behind his inquisitive passion was not any sense of fulfilling a mission, but rather ordinary curiosity.

## Teacher, friend, social activist

The Professor was the teacher and mentor of several generations of microbiologists. He served as the advisor for dozens of doctorate theses, and more than a dozen individuals produced D.Sc. theses at institutes under his direction. The Professor's lectures were model examples of the presentation of modern knowledge in a systematic albeit nonstandard fashion, full of digressions. His famous, repeatedly reprinted textbook Życie bakterii (The Life of Bacteria) evidences the same style: alongside serious diagrams and tables it offers satirical illustrations by Szymon Kobyliński. Prof. Kunicki-Goldfinger was undoubtedly a charismatic teacher, who influenced the character and behavior of his students. Many of them remember him as an extraordinarily kind man, ready to help immediately.

Of course, aside from his research and teaching activities, Kunicki-Goldfinger also did much for the public good. He took part in the underground "flying university" lectures, organized the Society for the Advancement of Science and Arts, and assisted the Workers Defense Committee (KOR). He co-organized a stipend fund for scholars being repressed by the authorities. Such rebellious activities led him to be interned on 13 December 1981 - as the only member of the Polish Academy of Sciences, it seems, to be so punished. In the later stage of his life, the professor was a member of Lech Walesa's Citizens Committee, and participated in the Round Table talks in 1989, as part of group for science and education.

Prof. Kunicki-Goldfinger's lifelong roaming came to an end on 14 August 1995. His remains were laid to rest in his family vault in a Lublin cemetery.



Both Wrocław University (1989) and Maria Curie-Skłodowska University in Lublin (1990) awarded Prof. Kunicki-Goldfinger with honorary doctorate degrees (here, the award ceremony in Wrocław)