



**Rachel Galun
(1926 – 2023)**

It is with deep sadness that we acknowledge the passing on April 17, 2023, in Tel Aviv, Israel, of Prof. Rachel Galun, a highly respected figure in medical, veterinary, and agricultural entomology. Prof. Galun made significant contributions to the study of medically relevant insects and ticks during her illustrious career. Her research expanded our understanding of vector-borne diseases and provided valuable insights into the interactions between these arthropods and the pathogens they transmit. This particular expertise demonstrated Prof. Galun's dedication to tackling intricate problems at the intersection of biology and public health in an objective manner. She researched the mechanisms behind mosquitoes' ability to identify the blood of their hosts by identifying ATP in said blood. Furthermore, she explored how ticks are induced to feed on blood by sensing glutathione in the blood, which triggers stimulation in their chelicerae's sensillae. Additionally, Prof. Galun demonstrated the capability of tsetse flies and mosquitoes to inhibit the host's local immune response for blood-feeding purposes. Her research included the development of artificial feeding methods to study sensory responses in insects, particularly mosquitoes.

Prof. Rachel Galun was born in Tel Aviv on April 3, 1926 and earned degrees in biology and agronomy from the Hebrew University of Jerusalem. She pursued advanced studies with Prof. Gottfried Fraenkel in the Department of Entomology at the University of Illinois, Urbana, and obtained her PhD in 1955. During her career, Galun worked as a medical entomologist in the Israel Defense Forces from



Figs 1–3. (1) Rachel in her lab in the Israel Institute for Biological Research in Ness Ziona, with Mariassa Bat-Miriam, early 1960s; (2) Rachel during the International Congress of Entomology in Beijing, China, 1996; (3) Rachel during the Board of Governors Meeting, ICIPE, Nairobi, Kenya.

1948 to 1952, and at the Israel Institute for Biological Research from 1956 to 1977. She lectured on insect physiology and medical entomology at Tel Aviv University from 1965 to 1972, Haifa Medical School from 1970 to 1973, and Technion, Haifa in 1974–1975. She became a Professor of Zoology at the Hebrew University in 1977 and later served as head of the department from 1978 to 1982. Between 1985 and her retirement, she worked in the Department of Parasitology at the Hebrew University-Hadassah Medical School. In 1992, she received the renowned McArthur Distinguished Visiting Professor Award from the Center for Insect Science at the University of Arizona. In addition, Prof. Galun conducted seminars at the World Health Organization in Geneva, the International Atomic Energy Agency in Vienna, and the International Center of Insect Physiology and Ecology in Nairobi, where she also served as a member of the Board of Directors. She was a member of the Council for the International Congresses of Entomology (ICE) for both the ICE meetings in 1992 (Beijing, China) and 1966 (Firenze, Italy). Prof. Galun was one of the important founders of the Entomological Society of Israel. At the society's annual meeting in 2017, she received an honor and delivered a lecture at the age of 91.

Her areas of research included radiation, radioisotopes, insect pest rearing methods, sterile male techniques for tsetse flies, the physiology and control of the medfly, and the role of purinergic receptors in hematophagous insects' blood meals.

Prof. Galun's dedication to advancing knowledge in her field is evident in her nearly 170 publications in reputable scientific journals, such as *Science* and

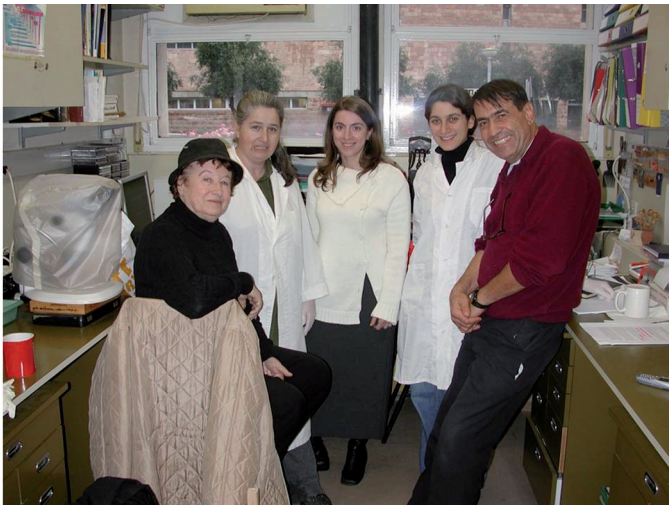


Fig. 4. Rachel with Kosta Mumcuoglu and his students in his lab in the Parasitology Department, Hebrew University of Jerusalem, 2006.

Nature. Her innovative and rigorous research methods have set a high standard for her colleagues. In addition to her scientific achievements, she has also exhibited outstanding leadership in her department.

Beyond her scientific prowess, Prof. Galun was an inspirational mentor and advocate for the next generation of scientists. Her commitment to fostering scientific curiosity and nurturing young talent has left an enduring legacy, with many of her students and mentees continuing to make significant contributions to entomology.

In celebrating the life of Prof. Rachel Galun, we honor a brilliant scientist, mentor, and leader whose work has left an indelible impact on the scientific landscape in Israel and beyond.

I am grateful to Prof. Merav Ahissar, daughter of the late Prof. Rachel Galun, for the provision of the photographs from the family archive (except the photograph on the Fig. 4).

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