

Marianna Sikorska-Walker

(b. 1944)

Researcher, neurogenesis and brain repair



As Principal Research Officer at National Research Council, Dr. Sikorska has led successful projects in fundamental cell biology and neurobiology, and several applied research and development projects resulting in patents, technology transfer and commercialization. Her most notable scientific achievement was the proposal of a model of chromosome structure.

Born in Wilkolaz near Krasnik, Poland, Marianna Sikorska graduated from the Warsaw Polytechnic, Department of Chemistry, in 1972, with an engineering degree in technology of biologically active compounds. Following her graduation, she worked at the Polish Academy of Sciences (PAN) as research assistant, studying the effects of bioactive organophosphates on brain metabolism. In 1978, she obtained a Ph.D degree from PAN and moved to Canada, where she accepted a research associate position at the National Research Council (Division of Biological Sciences) where she has conducted her research ever since.

She currently heads a fifteen-member, multidisciplinary team working in the field of neurogenesis and brain repair, and is an adjunct professor in the Department of Biochemistry, Microbiology and Immunology at the University of Ottawa.

Her proposal of a model of chromosome structure, the work undertaken in collaboration with her husband, Dr. Roy Walker, was included in the Lehninger biochemistry textbook, the leading textbook authority in this field. It also led to her team's important discovery of a series of signaling events that cause cell death.

Dr. Sikorska's work in the field of apoptosis led to her discovery of a solubilization technology for hydrophobic bioactive compounds. It is considered one of the most important scientific contributions from the National Capital Region. A U.S. company is currently developing products based on Dr. Sikorska's patented technology.

Dr. Sikorska has amassed an outstanding record as a ground-breaking researcher: over a hundred-twenty papers published in peer-reviewed international journals; five patents; and eight book chapters. She is an in-demand speaker on the national and international circuit.

Dr. Sikorska has received the OCRI (Ottawa Centre for Research and Innovation) Career Achievement Award for her internationally recognized success in both fundamental research and applied research and development.



Photos from top left clockwise:

• Marianna Sikorska-Walker • Dr. M. Sikorska-Walker in laboratory • At work with her husband, Dr. Roy Walker
All photos – family archive