



Professor **Janusz M. Rosiak** (1946-2024) was a prominent scientist in the field of *radiation chemistry of polymers* and *polymer-based biomaterials*, whose important contributions to this branch of science and technology span from the theory of crosslinking to widely implemented products such as hydrogel wound dressings.

Janusz Rosiak, as a graduate in chemistry, first worked for a few years as an engineer in the chemical industry and profited from this experience in his later activities. From 1972 he embarked on a scientific career at the Lodz University of Technology (Lodz, Poland), contributing to the development of the Institute of Applied Radiation Chemistry and working there, finally as a professor and group leader, till his retirement in 2016.

Professor Rosiak made significant contributions to the knowledge of the interaction of ionizing radiation with matter, especially with polymer systems. *Equations describing radiation cross-linking of polymers* developed by him in co-operation with professor Arthur Charlesby, the founder of radiation chemistry studies on polymers, have been extensively used in this field of science. His experimental work, including pulse radiolysis studies, greatly contributed to the understanding of the *mechanisms of radiation-initiated reactions* of many commonly used synthetic and natural polymers. It constitutes the basis of the current radiation chemistry of polymers and is widely cited.

He gained worldwide recognition for his work in the field of *polymer biomaterials*. His innovative technology for manufacturing hydrogel dressings was implemented in many countries. Professor Rosiak is also one of the pioneers of nanotechnology, including research on nanogels constituting molecular cages that can be used, for example, for controlled drug delivery. His 1998 article was the second publication in the world to have the word "*nanogel*" in its title. His publications have been cited over 5,300 times so far. In 2020, he was included in the "World's Top 2% Scientists" list compiled by Stanford University and Elsevier.

Since 1991, he has been an *expert of the International Atomic Energy Agency* and, on its behalf, has completed over 30 technical missions in many countries around the world (including Algeria, Belarus, Brazil, China, Cuba, Egypt, Indonesia, Iran, Kazakhstan, Malaysia, Saudi Arabia, Sri Lanka and Syria). He managed many international projects in cooperation with EU, IAEA, NATO and top research centers including the Massachusetts Institute of Technology. He acted as a scientific consultant for many companies and institutions.

Professor Rosiak was often invited to deliver plenary lectures at the most important international conferences in the field of radiation chemistry and technologies. He co-chaired the 10th Ionizing Radiation and Polymers Symposium – IRaP'2012. On the occasion of his 70th birthday, a special session devoted to his achievements was held at the IRaP'2016 conference, an evidence of his exceptional scientific position and universal recognition of his contributions to the international scientific community.

In 2016 he *co-founded BioMatGel*, a company focused on developing products for cosmetic and medical applications based on radiation technologies. The *Professor Janusz M. Rosiak Award*, sponsored by BioMatGel, is our small token of appreciation to his achievements and a way to keep alive the memory of professor Rosiak as a great scientist and magnificent man, a tutor and friend of many of us.