

In memoriam
Vera Johanides (1917-2000)

Professor Vera Johanides, as the head of the Department of Biochemical Engineering at the Faculty of Food Technology and Biotechnology, University of Zagreb, was very much engaged in educational, scientific and social activities. As a distinguished biotechnologist, she made notable contribution in the fields of industrial microbiology and biochemical engineering in general and in production of single cell proteins, antibiotics, enzymes, microbial degradation of xenobiotics and environmental microbiology in particular. She was a pioneer in the development of continuous cultivation processes, and a promoter of several solutions for national and international environmental problems and founder as well as the first president, of the Section for Environmental Engineering of the Croatian Society of Chemical Engineers.

Vera Johanides was born on October 8, 1917 in the district of Vukovar, Croatia. Having been educated in the elementary and high-school in Vukovar, she read chemistry at the University of Ljubljana and received a BSc degree in chemistry in 1940 and in engineering in 1941. She obtained her PhD degree on antibiotic producing fungi in 1955 at the University of Ljubljana. She was appointed chief of the laboratory staff at the Zagreb Brewery from 1945 to 1950 which was her first step into traditional biotechnology to which she will be devoted until the rest of her life. Being elected assistant lecturer in 1950, she started her university career at the University of Zagreb in the Laboratory of Technical Microbiology. She was appointed assistant professor at the University of Zagreb in 1958, associate professor in 1961, and full professor in 1964. She was the Head of the Department of Biochemical Engineering from 1970 to 1980 and prorector of the University of Zagreb from 1984 to 1986. After her retirement, she was made Emeritus Professor at the same University. She was an able pedagogue and teacher, supervising the training of undergraduates and PhD students.

Many of us remember her lectures of Industrial Microbiology and Biochemical Engineering at the Technological Faculty and the Faculty of Food Technology and Biotechnology.

She published 99 scientific and 43 professional papers, and 14 patent applications. She initiated organization of courses of biotechnology not only at University of Zagreb, but also at Universities of Osijek, Ljubljana and Skopje, where her PhD students became initiators and funders of biotechnology departments. She collaborated with well-known centers of biotechnology in Rome, Zürich, Graz, Glasgow, Prague and Philadelphia, as well as on MIT.

For many years she was an unsurpassed authority on beer brewing and a well-known adviser in beer microbiology, biochemistry and technology, as well as in designing and building new breweries. Thanks to Professor Vera Johanides Croatian breweries were among first ones to use microbial enzymes for brewing and clarification of the beer.

She was an active member in many professional and scientific societies committees and editorial boards: Croatian Society of Microbiology, Association of Geneticists, Croatian Society of Enology, Counsel for the Oil and Committee for the Protection of Nature at the Yugoslav Academy of Sciences and Arts, Association for Protection of Croatian Waters, Croatian Society of Biotechnology, American Society of Microbiology, the British Society for Applied Bacteriology, International Committee at IUMS (Committee for Economic and Applied Microbiology, Committee for Microbiology of Streptomycetes), EFB Committee of IUPAC from 1980 to 1986. From 1978 to 1982, she was a member of the Editorial Advisory Board of the European Journal of Applied Microbiology and Biotechnology, and a member of the Editorial Advisory Board of 8th volume of Rehm and Reed's Biotechnology edition from 1980 to 1987 (Verlag Chemie, 1988). As a representative of the Association of Microbiological Societies of ex-Yugoslavia, she signed the Foundation Document of European Federation of Biotechnology in Interlaken on September 25, 1978. She was a member of honor of Slovenian Institute of Chemistry, as well as a lifelong president of honor of the board of Biotechnical Foundation of the Faculty of Food Technology and Biotechnology.

For her fruitful work, she received many recognitions and awards: the Lavoslav Ruzicka medal from the Union of Chemists and Technicians, Croatia, Purkinje medal from Czech Medical Society (antibiotics field), Medal for people's merits, Medal of the city of Zagreb, Charta Rabuziana from the Society for Improving the Quality of Life, and Fran Bosnjakovic award from the University of Zagreb.

Her immense knowledge and experience, erudition, enthusiasm, her scientific and innovative research made Emeritus Professor Vera Johanides an outstanding figure. And while we feel sad that Professor Vera Johanides is not among us anymore, we are proud and happy at the same time because we had the opportunity to have known her, learned from her and worked with her.

Vladimir Maric

Srdan Novak