

Prof. Dr. Sc. Slobodan Grba – Bobo
(April 16, 1942 – April 8, 2011)



To the memory of Professor Slobodan Grba

Slobodan Grba, Full Professor at the Faculty of Food Technology and Biotechnology of the University of Zagreb, left us unexpectedly on April 8, 2011. He was the Head of the Laboratory for Fermentation and Yeast Technology and the best boss I have ever had.

Prof. Dr. Sc. Slobodan Grba was born on April 16, 1942 in Narta near Bjelovar. He finished elementary school in Narta and then continued his education in Zagreb. In 1966 he graduated in biotechnology from the Department of Biotechnology of the Faculty of Technology of the University of Zagreb, Croatia, and began to work in Pliva, a pharmaceutical company, as an engineer in the production of antibiotics (OTC), where he remained until 1969.

At the invitation of Prof. Dr. Sc. Siniša Ban, he joined the Department of Biotechnology of the Faculty of Technology, as a teaching assistant to cover the subject Fermentation technology. From 1970 to 1972 he worked at the Faculty of Food Technology in Bratislava, Slovakia, and at the Department of Biotechnology of the ALKO Institute in Helsinki, Finland, where he completed his postgraduate thesis and, in 1973 earned a Master of Science degree in Biotechnology.

To complete his doctoral thesis, he returned to the Laboratory of Yeast Physiology of the ALKO Institute in Helsinki in 1974, where he worked on the physiological state of yeast cells in various technological processes (baker's yeast production, ethanol production, SCP production) and in 1976, he earned his PhD in Biotechnological sciences.

In 1979 he worked as an Assistant Professor at the Faculty of Food Technology and Biotechnology, Zagreb, where he also became an Associate Professor in 1986 and Full Professor in 1991, holding the position of Head of the Laboratory for Fermentation and Yeast Technology at the Department of Engineering. At the same faculty, he performed the duty of the Dean from 1990 to 1995.

The scientific research of Professor Slobodan Grba was focused on various areas of biotechnology and applied biotechnological processes in the food industry. He began his work on the study of biochemical changes in cells of *Saccharomyces cerevisiae* yeast to improve the physiological activity of the cells for various biotechnological processes. Particular attention was paid to the production of active yeast biomass for baking purposes. For the production of baker's yeast from six strains of *S. cerevisiae*, Prof. Grba selected one which was used in industrial processes in Kvasac plc (formerly Pliva). Later, he focused his research on the incorporation of bioelements in yeast cells and on single-cell protein production from different substrates. Also, he explored the increased production of yeast biomass for food and pharmaceutical purposes. Notably, he studied the accumulation of *S*-adenosyl-L-methionine (SAME) in yeast *S. cerevisiae* because SAME is an essential metabolite for the life of every cell and has a wide application in medicine. Prof. Grba extended his exploratory work in this area to continuous processes as the leader of several scientific projects.

Another area of interest was his research in the possibilities of applying the process of accumulation of metal ions in lactic acid bacteria and yeast with the goal of producing starter cultures enriched with trace and major elements for production of functional food, and their role in the processing of bakery products. The results of his research led to over 50 scientific and professional papers, three chapters in books, numerous presentations at conferences in the country and abroad. He also led three scientific projects and collaborated on several local and two international projects. Recently, he wrote and published a book on *Yeasts in Biotechnology Processes* that covers a large part of modern teaching on the subject.

The professional activity of Prof. Grba was mainly built on themes of scientific research. He had a very successful cooperation with the biggest factory Kvasac plc for the production of baker's yeast in Croatia. At the same time, prof. Grba was a consultant for Pliva factory and Sladorana, Županja, Croatia, where he received special recognition for the introduction of continuous production of alcohol and yeasts. Among his many achievements are also a number of technological projects as well as an acclaimed Croatian patent.

Apart from his scientific work, Prof. Grba actively participated in teaching, and thus took part in a number of undergraduate and postgraduate lectures, including new programmes associated with the Bologna Process, such as Biotechnology II, Biotechnology III, Principles of biotechnological production of food, Production of ethanol, baker's and food yeast, and Design of biotechnological processes. In connection with public education about the role of baker's yeast in the production of bread, he was often a guest on the radio and television broadcasts.

Amongst other activities, he was a member of national and international academies of science and engineering, the Croatian Society for Nutrition and Food Technology, and a member of the editorial board of *Food Technology and Biotechnology*.

While he was the Head of our Laboratory for Fermentation and Yeast and my boss, he was also my best friend. I always found in him a great supporter and a friend. Always in a good mood, he was willing to listen to all my problems and offer advice. Our cooperation during all these years was simply wonderful.

I cannot escape from this terrible loss. Yes, even if Bobo is no longer amongst us, the memory of him, which will always be in my heart and thoughts, will stay in my life. Although we are all aware that one of us may leave this world anytime, we are never really prepared for it. The tears that I have shed over the loss of my wonderful friend are slowly washing my pain away, so that one distant day I may be able to remember my friend, my wonderful boss with a tender smile and be thankful for his immense goodness which has enriched my life.

Vesna Stehlik-Tomas