

In memoriam



*Prof. Dr. Sc. Branimir Zamola
(1935–2003)*

Professor Dr. Sc. Branimir Zamola, a long-time member of the Editorial Board of the Food Technology and Biotechnology, died on December 5th, 2003. Born in Mostar (Bosnia and Herzegovina), on December 10th 1935, he finished primary school (1949) and secondary school education (1953, Chemical Technical School with additional Gymnasium programme for graduation examination) in Zagreb. Then he started to study Chemical Technology at the Technical Faculty of the University of Zagreb, simultaneously employed as a chemical technician in Pliva Pharmaceuticals, in order to procure financial sources to cover the cost of study. The degree of B.Chem.Eng. he attained in 1961, and prolonged his employment in Pliva, where he was included in working teams engaged in installing the industrial production of oxytetracycline. He left Pliva in 1962, and started his engagement in »Krka« (Novo Mesto, Slovenia), where he established a Biotechnology Department. After introducing the production of antibiotics (tetracyclines) he left »Krka« in 1968, and returned back to Zagreb, where he accepted the position of the director of the Institute of the production of sera and vaccines (Serum Zavod Kalinovica). There he introduced the production of bioinsecticides and then, together with other colleagues, he established a new pharmaceutical factory under the name »Sezak«. When »Sezak« became incorporated into Pliva, he left his position with an intention to be engaged in Slovenia again. He was welcomed to »Lek«, a pharmaceutical company in Ljubljana, where he was engaged as the adviser for patents. In 1971 »Lek« in collaboration with »Podravka« (Koprivnica, Croatia) installed the pharmaceutical company »Belupo« in Ludbreg (Croatia), where he played a significant role in realisation of this project. In 1973 he attained the Ph. degree at the Faculty of Food Technology and Biotech-

nology, University of Zagreb, with the thesis »Influence of Cultivation Parametres on Sporulation of the Bacterium *Bacillus thuringiensis*«.

In 1976 his professional and scientific interest extended to other biotechnology subjects, and Dr. B. Zamola decided to continue his career in Italy. In San Giovanni al Natisone (Udine), he established the Institute for Chemical and Biotechnological Research. Later, in the same institute, he was the manager of the Department of Bioinsecticide Production. Bacterium *Bacillus thuringiensis* was applied as a bioinsecticide producer. Already in 1984 he arranged contracts with Swiss company »Putoma AG« in Lucerne, which was the producer of ergot-alkaloids on the basis of cultivation of *Claviceps purpurea* fungus. Accordingly, for »Putoma AG«, Dr. B. Zamola established microbiological laboratory in Milan, in order to enable the finding of a new technology for the production of ergot-alkaloids. Since then, in collaboration with his colleagues, he discovered a new strain of *Claviceps purpurea*, while at the same time he succeeded in developing a new technology for the production of ergot-alkaloids. That is why »Putema AG« engaged him to introduce new technologies in European pharmaceutical companies. In 1992, Dr. Zamola came back to Croatia. Working in the Ministry of Economy of the Republic of Croatia, as one of the leading persons in the Management of Industry and Shipbuilding, he received an opportunity to help optimally to the people of Croatia, and indeed he did very much.

Personally, and in collaboration with others, Dr. B. Zamola improved the development of biotechnology in Croatia and abroad. Some of his patents and production technologies are applied in 50 countries, in Europe and worldwide; the successful application of patents and

technologies referring to productions of benzodiazepin (apaurin), antibiotics (tetracyclines), ergot-alkaloids and especially bioinsecticides, to name but a few.

Scientific and research interests of Dr. B. Zamola were mainly focused on biochemical engineering, especially on the effects of aeration and agitation on the growth of microorganisms and production of microbial metabolites, with an emphasis on their industrial production, *e.g.* production of bacterial and viral bioinsecticides and fungal production of ergot-alkaloids. As an author of 25 scientific and professional papers, 6 patents and over 30 different projects and development programmes, as well as with his personal engagements and specific activities he influenced the progress in science and economy in Croatia and abroad. He was a member of the Croatian Society of Chemical Engineers, Croatian Society of Biotechnology, Croatian Biochemical Society and the Council for Scientific and Technological Development at the Croatian Academy of Science and Arts. We appreciate especially his engagement oriented to our journal, where he was a member of the Editorial Board for a long-time. He was also well recognised abroad, *e.g.* as the member of the American Biographical Institute (Raleigh, North Carolina, USA), the International Biographical Centre (Cambridge, England), and as invited speaker for presenting lectures in some institutes in Italy, Hungary and Slovenia. He was fully engaged as the member of Organising Committees of some National and International Scientific Meetings. Normally, his merits were accompanied with awards and acknowledgements, *e.g.* he was the winner of the Slovenian Award for Inventions 1977.

The pronounced wish of Dr. B. Zamola to pass his knowledge to others, especially to the young ones, was continuously incorporated in his personality during his

career. He participated actively in the realisation of education programmes of the Faculty of Chemical Engineering and the Faculty of Food Technology and Biotechnology of the University of Zagreb, by giving lectures on Graduate and Post Graduate Studies (lectures referring to »Projecting in Pharmaceutical Industry«, »Industrial Microbiology« and »Protection of Intellectual Property«). In 1998, he was elected to the position of the Titular Professor of the Faculty of Food Technology and Biotechnology of the University of Zagreb.

The first time I met Dr. Branimir Zamola in 1954, during our study at the Department of Chemical Technology at the Technical Faculty of the University of Zagreb. As I remember, he was a good student, communicative and very friendly, while showing specific interests for music. So, already from student days he demonstrated his feeling for accord and justice, his wish to help others and to transfer his knowledge to those showing interest for it. All this was reflected on his later engagement and his very evident success. He appreciated people without any discrimination, regardless of their education, social position or origin, behaving always ethically correctly. When working he was deeply engaged and concentrated, efficient, successful, correct in collaboration with others. However, it is important to point out that he never neglected his family. His feeling for accord directed him to be optimally engaged in finding possibilities for maximal happiness of every member of his family.

We appreciate very much the personality and merits of our colleague Prof. Branimir Zamola, and he will remain in our memory forever.

Marijan Bošnjak