

### In memoriam: Goran Bačić (1951–2016)



Death comes after countless words, interactions, events, and memories to crystallize the image of life. If we ought to define Goran Bačić in one word, it would be *sensei* (*teacher with the highest level of mastery*). His favorite quote was: 'I don't want to buy you a meal. I want to teach you how to fish'. Goran (out of respect we usually called him Professor) did his best to leave each of his pupils with a craft and a sense for experimental logic, research persistence, scientific writing, and ethical conduct in science. In scientific discussions, he nourished integrative and independent thinking and encouraged the exchange of ideas in a utterly egoless manner. Goran died on September 2, 2016, in Belgrade, after a long and fiercely-fought battle with cancer. He loved and respected life and science to the fullest, working until the very end with a couple of papers 'under review' at the moment and a recently published research in top journals [1, 2].

Goran received a PhD in Physical Chemistry from the University of Belgrade on "the application of NMR in examining water structure and ions in biological systems" in 1985. Following a short visit to the University of Oxford, Goran moved further west to work with Harold M. Swartz at the University of Illinois (1986–1988) and at Dartmouth Medical School (1992–1994) [3]. He had a major role in the pioneering research in the fields of EPR imaging, oximetry, microscopy, and *in vivo* spectroscopy that took place in those years and that involved many prominent figures from the 'EPR and MRI world', including Paul Lauterbur [4–8]. Expertise in EPR, NMR, and MRI provided him with a unique opportunity to combine these methods (this was Goran's favorite approach), and to pursue characterization of contrast agents [9–18]. In 1991, he accepted a position at the Department of Radiochemistry, Faculty of Physical Chemistry, University of Belgrade. His mentors in radiochemistry were internationally renowned academics, Pavle Savić and Slobodan Ribnikar. Goran became Associate Professor in 1999, and Full Professor in 2005. His courses – Biophysical Chemistry, Nuclear Spectrometry, Biosystems and Radiation, and Physicochemical Methods in Biology and Medicine, were very popular among BSc and PhD students because of his gift for teaching and narration. Between 1995 and 2003, he was the Scientific Director of MRI Unit at the Institute for Oncology and Radiology, the main institution of this kind in Serbia. He worked on the customization of MRI

sequences for detection and identification of different tumor types [19], and on the training of radiologists. Practically all MRI facilities in the country have a touch of Goran Bačić. He invested a considerable amount of time in the development and public implementation of procedures for environmental radioprotection, dosimetry, and remediation [20–25]. The last decade of his life, Goran dedicated to the application of EPR spin-trapping and spin-labeling techniques in biochemical systems [26–28], and to the development of MRI biomarkers for neurodegenerative diseases [29–30].

Goran Bačić was a multifaceted researcher and a flamboyant person. His intellect was too large for one story but did not lack the focus and profound understanding of all aspects of his scientific interests. As a student he acted in a youth theatre, where (this might appear funny) he learnt the basics of scientific writing. He thought us that articles should be structured like drama, with intertwined storylines and sense for details, suspension, climax, and resolution. He worked tediously on furnishing the manuscripts and enjoyed the reviewers' response 'Accept as it is' very much. Many of his papers are little pieces of perfection.

A great mind and sensei has left us. He will be truly missed.

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