Known and unknown vitamin C

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Abstract

There are many controversies and misunderstandings regarding physiological role of vitamin C. However, recent discoveries allow to understand metabolism and biodistribution of vitamin C much better. Consequently, recommendations regarding its supplementation can be rationalised. The quantitative measures used to describe vitamin C performance in biological systems is developed. Those measures can be subsequently used to evaluate conclusions derived from conceptual and mathematical models describing vitamin C homeostasis. This allows to propose quantitate parameters for intravenous vitamin C application.

About the presenter

Marek Langner is a Director of the Research and Science Dept. Lipid Systems, and a cofounder of the company. As biophysicist he is also Professor at the Wrocław University of Science and Technology, Dept. of Biomedical Engineering; total number of papers exceeds 120, sum of times cited without self-citations: 1400 (by Web of Knowledge). Prof. dr hab. inż. Marek Langner obtained his PhD at Wrocław Medical University in 1985 and habilitation at University of Łódź, Poland, in 1999. In 2011, he has been awarded title of professor, on request of the Department of Biotechnology and Biophysics at Jagiellonian University, Krakow, Poland. After obtaining his PhD he worked at State University of New York at Stony brook, Roswell Park Cancer Institute, Buffalo, NY, and Wrocław Agricultural University. Since 1999 he is affiliated with the Wrocław University of Science and Technology, where he is head of the Laboratory for Biophysics of Macromolecular Aggregates. His scientific interests are focused on the biophysics of multicomponent systems and their interactions with biological matter. His basic research, presented in over 120 publications, has been translated into practice. His extensive experience with lipid aggregates has been used for the development of pharmacologically viable targeted drug delivery systems. He was a cofounder of the spin-off company Novasome in 2004 and later in 2009, of the start-up company Lipid Systems, which is currently developing liposomal formulations of a variety of biologically active compounds.