## Targeted drug delivery systems — Part I

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## Abstract

Classical pharmacology is based on the average — an average patient, average physiological parameters, average drug distribution and average treatment. Such an approach works well in some applications and in terms of drug development cost reduction, but it does not provide sufficient efficiency in many cases. Therefore, in the last few decades novel strategies have been developed which could overcome unspecific drug delivery, such as targeted drug delivery systems among which liposomal formulations are one of the most promising. During the talk practical examples of the development of target drug delivery systems will be presented.

## About the presenter

Magdalena Przybyło, PhD is a biophysicist. She is CEO and co-founder of the Lipid Systems company. She is also an associate professor at the Wrocław University of Science and Technology, Department of Biomedical Engineering. Her main scientific interest are related to the biophysics of lipid membranes. She has an extensive experience in application studies on liposomal targeted drug delivery systems. In 2006 she was employed by the Czech Academy of Sciences in Prague as a researcher. For three years she worked as a project coordinator in CBR Novasome and HascoLek, on the two projects aiming at development of advanced transdermal drug delivery systems. Both are patented and were transferred to the production facilities operating in HascoLek pharmaceutical company. All scientific initiatives are closely related to the development of the liposomal formulations possessing new therapeutically attractive properties, either in the field of extended circulation (reduced injection frequency) or better safety. She is co-author of six patents/patent applications that protect products based on self-developed technology. In 2011, she received the Second Team Award of the Prime Minister for extended achievements in science and technology for the work titled *Development of targeted drug delivery* systems — from fundamental studies to production. She was a co-author and leader in four consortium based EU and regional grants, and a researcher in four.