

Preface

Special issue: Mechanisms of carrier-mediated intracellular delivery of therapeutics

This special issue of *BBA Biomembranes* covers the topics of the conference titled “Mechanisms of Carrier-Mediated Intracellular Delivery of Therapeutics,” held on August 25 and 26, 2005, as a satellite meeting of the joint 15th IUPAB and EBSA International Biophysics Congress.

The dramatic acceleration in the identification of new therapeutic molecules has provided new perspectives in pharmaceutical research. These molecules, however, are limited by their low cellular uptake and therefore dependent on the design of potent delivery systems. The meeting focused on peptide-based delivery systems, their structures, and cellular uptake mechanism and their implications for the delivery of therapeutics. A variety of topics from chemistry to therapeutic applications, including biophysics of the mechanisms involved in delivery, were presented in either conferences or poster

presentations. The meeting provided a large overview of cell-penetrating peptides and breakthroughs on the mechanisms and therapeutic applications of peptide-based delivery systems. Rational bases for their design, mechanism, and structure were provided as important requirements to develop safe carriers for human health and therapies.

After this very dense 2-day meeting with over 100 attendees from 21 countries, 20 speakers agreed to contribute to this issue of BBA either in the form of a review or as an original paper.

We hope that this combination of contributions gathered in one issue will help in the development of carrier-mediated delivery, which has been exploding over the last decade.

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