

Foreword

Interactions that form the basis of physiological responses in a living body are numerous indeed. They involve both endogenous and exogenous compounds like amino acids, peptides, proteins, nucleic acids and their constituents, hormones, transporters and, of course, drugs to enumerate just a few categories. Some of the methods capable of revealing these interactions are well established like bioaffinity processes or drug biopartitioning methods. Not all of them exploit chromatographic or electromigration methods though, e.g. affinity chromatography has found numerous applications in practice (for a recent set of reviews on this subject see *J. Chromatogr. B*, 768, 2000). From the chemical point of view categorization of the biologically relevant interactions is difficult, as both the nature of the molecular interaction and practical aspects play a role in the final formulation of an interaction revealing method. Frequently several different analytical approaches are combined to obtain the desired result. In the present volume, which certainly presents selected approaches only, we decided to classify the different interactions according to the categories of compounds involved, namely biopartitioning of drugs, proteins and nucleic acids (DNA) involving interactions, interactions of sugar components and some recent practical examples that are presented in the form of original papers. Based on the fact that affinity chromatographic techniques have been treated in consider-

able detail rather recently (*vide supra*), we have purposefully limited this type of reviews in the present volume. Regarding drugs, we attempted to offer an updated view of the classical approaches (typically the Hummel–Dreyer method), present an overview on drug delivery systems and modeling of drug absorption. As far as polymeric sugars are concerned, the main type of interactions involved is their *in vivo* polymerization as demonstrated in detail with hyaluronic acid polymers.

We hope that the present volume will offer an updated information about the separation methods capable of revealing biologically relevant interactions involving the main categories of compounds found in a living body (both endogenous and exogenous). As nothing in this world is perfect, any comments or suggestions from the readers will be highly appreciated.

Ivan Miksik
Zdenek Deyl*

*Academy of Sciences of the Czech, Institute of Physiology
Videnska 1083, Prague-4-Krc 142220, Czech Republic*

* Corresponding author. Tel.: +420-2-41062558
fax: +420-2-41062558

E-mail address: deyl@biomed.cas.cz

Received 10 September 2003