quenched the intrinsic fluorescence of HSA via static quenching. The Stern-Volmer plots in all the liposome solutions showed a positive deviation from the linearity. According to the thermodynamic parameters, the hydrophobic interactions appeared be the major interaction forces between Butein and HSA. The effect of Butein on the conformation of HSA was also investigated by the synchronous fluorescence under the same experimental conditions. In addition, the partition coefficient of the Butein in the PC liposomes was also determined by using the fluorescence quenching process. The obtained results can be of biological significance in pharmacology and clinical medicine.

Treu, G. et al. (2015). "The dessau workshop on bioaccumulation: State of the art, challenges and regulatory implications." *Environ Sci Eur* 27(1):34.

Bioaccumulation plays a vital role in understanding the fate of a substance in the environment and is key to the regulation of chemicals in several jurisdictions. The current assessment approaches commonly use the octanol–water partition coefficient (log KOW) as an indicator for bioaccumulation and the bioconcentration factor (BCF) as a standard criterion to identify bioaccumulative substances show limitations. The log KOW does not take into account active transport phenomena or special structural properties (e.g., amphiphilic substances or dissociating substances) and therefore additional screening criteria are required. Regulatory BCF studies are so far restricted to fish and uptake through the gills. Studies on (terrestrial) air-breathing organisms are missing. Though there are alternative tests such as the dietary exposure bioaccumulation fish test described in the recently revised OECD test guideline 305, it still remains unclear how to deal with results of alternative tests in regulatory decision-making processes. A substantial number of bioaccumulation fish tests are required in regulation. The development of improved test systems following the 3R principles, namely, to replace, reduce and refine animal testing, is thus required. All these aspects stress the importance to further develop the assessment of bioaccumulation. The Dessau Workshop on Bioaccumulation which was held from June 26 to June 27, 2014, in Dessau, Germany, provided a comprehensive overview of the state of the art of bioaccumulation assessment, provided insights into the problems and challenges addressed by the regulatory authorities and described new research concepts and their regulatory implications. The event was organized by UBA (Dessau, Germany) and Fraunhofer IME (Schmallenberg, Germany). About 50 participants from industry, regulatory bodies and academia listened to 14 lectures on selected topics and joined the plenary discussions.

Tsopelas, F. et al. (2017). "Lipophilicity and biomimetic properties to support drug discovery." *Expert Opin Drug Discov* 12(9):885–896.

INTRODUCTION: Lipophilicity, expressed as the octanol–water partition coefficient, constitutes the most important property in drug action, influencing both pharmacokinetic and pharmacodynamics processes as well as drug toxicity. On the other hand, biomimetic properties defined as the retention outcome on HPLC columns containing a biological relevant agent, provide a considerable advance for rapid experimental–based estimation of ADME properties in early drug discovery stages. Areas covered: This review highlights the paramount importance of lipophilicity in almost all aspects of drug action and safety. It outlines problems brought about by high lipophilicity and provides an overview of the drug-like metrics which incorporate lower