

Editorial Open Access

Note on the "Molecular Pharmaceutics and Organic Process"

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Molecular Pharmaceutics is emerging as one of the trendy terms related to improved/advanced drug therapy. Pharmaceutics is most probably the field within pharmaceutical sciences which has seen the biggest change in the past fifty year. The technological development on one hand and understanding of molecular pathways of diseases and intracellular trafficking of drugs and drug carriers on the other hand, has led to development of "smart" delivery systems and made some earlier impossible approaches, possible. Development in pharmaceutical chemistry and drug discovery opened unlimited options in drug design. Nanotechnolgy and nanomedicine contributed with the final boost in development of advanced delivery systems. In search for "magic bullet" we came to realize that the drug carrier is equally, if not even more, important as is the new active substance. In development of new superior delivery systems, we learned to learn more from nature, and try to mimic/copy the nature whenever possible. From simple improvement in drug therapy by using delivery systems to solubilize poorly soluble drugs, to bio-responsive systems able to deliver the drug where, when and how much needed. It is very much exciting to try to evaluate or even predict what is the area where the improvements had or will have the greatest impact; will this be the cancer therapy, vaccine development, antimicrobial therapy, gene therapy, etc.? However, it is clear that our success in reaching the goal of improved therapy, personalized medicine, will depend very much on how much we join forces in understanding the molecular mechanisms, the pathways of diseases, the chemical properties of designed drugs, together with technologist, chemists, industrial pharmacists, and all those involved in drug development. Pharmaceutical sciences have progressed so rapidly due to multidisciplinary approaches used, the combined expertise. And even closer exchange of expertise and experiences is needed. However, in spite of progress in pharmaceutics, some goals remain to be reached. Is oral delivery of insulin just dream or is it feasible? What to do about antimicrobial resistance? Is nanotechnology going to solve earlier unsolvable obstacles? How realistic is DNA delivery? Have we looked carefully enough in nature to learn more? Are we missing some important points in our search for better therapy? There are numerous questions which remain to be answered. And thousands of scientists working in laboratories all over the world are trying to answer those and other questions. This journal aims at addressing those questions and opening arena to discuss the proposed answers. It offers an opportunity for scientists of different backgrounds but similar interests, and shared goals, to share their successes and failures, so that we all learn from them.

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