

Editorial

Dear Colleagues,

This Special Issue of the Journal of Peptide Science is dedicated to the 2nd International Congress on Natural Peptides to Drugs (NP2D) that was held in Zermatt, Switzerland in April 2006.

The discovery of novel bioactive compounds for the development of original drugs is of great importance, and peptides represent a class of molecules with a huge potential that has not yet been thoroughly investigated.

Therapeutic peptides and peptide-like compounds have shown great promise in treating various major health issues including pain, hypertension, hemostasis, and inflammatory and infectious diseases. Bioactive peptides are particularly abundant in nature and most of them can be grouped into three major families: peptidic hormones, toxins, and antimicrobial peptides.

Although closely related, there is surprisingly little interaction among these three areas. One of the primary goals of the NP2D congress is to bring together worldwide leading experts from these fields.

Through its ten plenary lectures and 38 oral presentations, the 2006 NP2D meeting has highlighted novel R&D strategies and has covered the most exciting recent developments related to discovery programs, molecular characterization, target receptor identification, peptide-receptor mapping, molecular pharmacology, structure–function studies, proteomics, and protein engineering. Topics also included design and optimization of lead compounds to preclinical and clinical development, drug targeting, innovative drug delivery systems, and large-scale production of synthetic or recombinant peptides. Intellectual property rights, regulatory hurdles, and ethical issues related to the biodiversity have also been addressed.

The congress ended with a roundtable discussion organized to debate controversial aspects of peptide drugs such as production costs, immunogenicity, specificity, stability, tissue distribution, and toxicity.

The NP2D original approach to the various aspects of natural peptides with therapeutic potential is aimed at stimulating the valorization of complementarities and at generating opportunities for multidisciplinary interactions. Again, more than one hundred outstanding worldwide scientists of diverse specialities, eager to discuss all aspects of their research, have attended this 'high altitude' event at the foot of the majestic Matterhorn mountain. In a different climate, this second edition of NP2D was held in the springtime, in the snow and under the sun, and turned out to be a true social, scientific and business success (you may visit the congress web-site for more information at <http://www.np2d.com>).

We are grateful to the authors for their contributions, the referees for their efforts, pertinence and time. As you will see, the articles of this special issue cover a variety of fields and nicely represent the natural peptides to drugs field. We hope that you will enjoy reading them.

Finally, we would like to express our deepest gratitude to our friend Philippe Bulet who did a great job with the coordination of the editorial work, to our scientific steering committee, to our sponsors and exhibitors, to the speakers, to all the participants for their confidence and for the great atmosphere they created. We are also grateful to all of those who helped from the sidelines.

We look forward to spending more such wonderful days during the next NP2D congress that will be held from 27 to 30 November 2007 at the same place with a special satellite-event, and we warmly invite you to join us. More information is available on the NP2D website at: <http://www.np2d.com>

On behalf of NP2D,

Philippe Bulet, Dimitrios Noukakis and Reto Stöcklin

Guest Editors