Invited theme issue proposal

Title: Lipidic Nano-carrier Delivery of “Big” Molecules

Journal: Current Pharmaceutical Technology

Lead Guest Editor: Tamer Elbayoumi
Department of Pharmaceutical Sciences, Midwestern University, Glendale, AZ, USA.

Aims and scope:

This topic issue will focus on the rapidly emerging field of nano-structured vehicles for efficient delivery of macromolecular therapeutics, with superior efficacy and lower toxicities, compared to conventional dosage forms. Enabled by various lipid-based materials/assemblies, invited nano-delivery platforms will involve (1) vehicle design parameters for tissue and cell targeting approaches (2) intracellular and extracellular release kinetics (3) localized and triggered release of a wide range of drugs for different pathological disorders. Contributions will emphasize the development of lipo-polymeric injectable nano-carriers utilizing proteins, enzymes, antibodies, peptides, genes, siRNAs, and vaccines and their conjugates/derivatives, in therapeutic applications for different human pathologies and disorders.

Suggested partial list of authors, their affiliations and tentative topics/titles:

1- Vladimir Torchilin
   Affiliation: Department of Pharmaceutical Sciences, Northeastern University, Boston, MA, USA.
   Topic: TAT/fusion peptide-modified multifunctional immuno-liposomes against cancer resistance.

2- Paulo Caliceti and Stefano Salmaso
   Affiliation: Department of Pharmaceutical and Pharmacological Sciences, University of Padua, Padua, Italy.
   Topic: stimuli-responsive micelles to facilitate cytosolic protein drug release.

3- Hayat Onyksel
   Affiliation: Department of Biopharmaceutical Sciences, College of Pharmacy, University of Illinois-Chicago, USA.
   Topic: Phospholipid micellar formulations for polypeptide delivery.

4- Tamer Elbayoumi
   Affiliation: Department of Pharmaceutical Sciences, Midwestern University, Glendale, AZ, USA.
   Topic: Partially polymerized vesicles for efficient intracellular delivery of macromolecules.

5- Suna Erdogan
   Affiliation: School of Pharmacy, Department of Pharmaceutical Sciences, University of Hacettepe, Ankara, Turkey.
   Topic: Lipid based vesicles for delivery of anti-thrombotic therapeutics.
6- Mohamed Elsayed  
Affiliation: Department of Biomedical Engineering, the University Of Michigan, Ann Arbor, MI, USA.  
Topic: Smart carriers for cytoplasmic delivery of therapeutic macromolecules.

7- Shaker Mousa  
Affiliation: The Pharmaceutical Research Institute, Albany College of Pharmacy and Health Sciences, Albany, NY, USA.  
Topic: Nanocarriers for thyroid hormone delivery.

8- Gerard D'souza  
Affiliation: Department of Pharmaceutical Sciences, MCPHS University, Boston, MA, USA.  
Topic: Mitochondria-targeted delivery of gene therapy.

9- Luciana- Lopez  
Affiliation: University of Sao Paulo -Institute of Biomedical Science, Sao Paulo, Brazil.  
Topic: Protein transduction domain-containing micro-emulsions as cutaneous delivery systems.

Tentative dates:

Deadline for submission: 06/01/2015  
Deadline for revision: 08/10/2015  
Publishing issue/date: 11/01/2015
T. ELBAYOUMI’S LIST OF PUBLICATIONS:

RESEARCH ARTICLES


15- A. Lukyanov, T. Elbayoumi, A. Chakilam, V. Torchilin, "Tumor-targeted liposomes: doxorubicin-loaded long-circulating liposomes modified with anti-cancer antibody". *Journal of Controlled release, 2004*, Jan; 100(1): 135-44. (*ANL&TAE equally contributed in this study*)

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