UNIVERSITÉ DE STRASBOURG

Course 4: « Microfluidic-assisted synthesis and release properties of multi-domain polymer microparticles drug carriers »

Brief Introduction:

Pharmaceutical science aims to localize the pharmacological activity of the drug at the site of action. Targeted drug delivery systems can directly deliver the payload to the desired site of action without undesired interaction with normal cells. This is especially important for anticancer drugs to avoid side effects, improve therapeutic response and patient compliance. Number of targeted drug delivery systems for anticancer drugs are in market and many more are in research phase. Most of the methods so far used suffer from poor drug loading, variation in composition, attachment of targeting ligands to carriers, *in vivo* and *in vitro* cellular uptake in cancer cell. Recently microfluidic techniques are gaining attention of researchers and formulation scientists due to ability of having a better control over above said parameters not to mention saving cost, material, time and the possibility offered to synthesize different system morphologies from nano to microscale.

Objectives:

The workshop will review the recent advances in the design of various targeted systems obtained through microfluidics and to some extent addresses challenges and hurdles faced during cancer cell treatment.

Who should attend:

All scientific people who are interested by the modulation of the drug kinetic release from dosage forms.

About The Speaker:

Dr. Vandamme Thierry
University of Strasbourg, France:

Thierry Vandamme obtained his PhD in Pharmaceutical Sciences in 1994 at the catholic University of Louvain in Belgium. After its PhD thesis, he carried out two post-doctoral training courses, the first one at the University of Stanford in California (01.01.1995 – 31.12.1995) in the Laboratory of Dr. Jorge Heller (Laboratory of synthesis of biodegradable polymers) and the second one at the School of Pharmacy in London (01.01.1996 – 31.08.1996) in the research team of Professor Ruth Duncan (Laboratory of therapeutic polymers). In 1996, he became lecturer at the University Louis Pasteur of Strasbourg and was promoted Professor in Biogalenics in February 2005 on an

employment “Fillon”. His research activities are undertaken within the Department of Bioorganic Chemistry (UMR7199) and the main aim of this research activities are based on the developments of new systems of delivery of drugs. His research activities and his laboratory are located in the Faculty of Pharmacy of the University of Strasbourg. He is also the Vice-Dean in charge of research in the Faculty of Pharmacy.