

The Interreg 2 Seas project "Site Drug" ("Site-Specific Drug Delivery") and the APGI ("International Association for Drug Delivery Sciences and Technology") are jointly organizing a "Hot Topic Day" on:

### Site-specific drug delivery to the colon

The idea is to minimize drug release in the upper part of the gastro intestinal tract (stomach and small intestine), and to deliver the drug specifically to the colon. This type of systems can be very helpful to improve the efficacy of local drug treatments of the colon, such as chronic inflammatory bowel diseases (e.g. Crohn's disease and ulcerative colitis). Also, the way could be paved for a holy grail in our field: The oral delivery of biopharmaceuticals for systemic action.

A variety of strategies has been proposed to allow for colon targeting, including dosage forms with polymeric coatings exhibiting pH dependent solubility, systems which are preferentially degraded by enzymes secreted by bacteria present in the

colon, and/or "time-controlled" devices, which release the drug after a pre-programmed lag-time (e.g., due to the rupturing of an outer film coating). A large spectrum of excipients and manufacturing techniques has been suggested with more or less promising results in vitro and in vivo.

Yet, the variability of drug release at the target site remains high, and numerous technical and biological challenges remain to be addressed and overcome. The role of the human microbiome is still not fully understood and premature drug release in the upper gastro intestinal tract is often not sufficiently controlled.



World-wide leading experts in the field from academia and industry will present and discuss with the audience. This includes :

- ✓ Prof. Abdul Basit, University College London, UK
- ✓ Prof. Andrea Gazzaniga, University of Milano, Italy
- ✓ Prof. Juergen Siepmann, University of Lille, France
- ✓ Dr. Giustino di Pretoro, Janssen, Belgium
- ✓ Dr. Frédéric Moens, ProDigest, Belgium
- ✓ Dr. Vipul Yadav, Intract Pharma, UK

#### Institutional partners

