Delivering nanopharmaceuticals through Biological Barriers (BIBA)

Inflammatory bowel disease is an increasingly prevalent condition in European countries, and is mostly treated by corticosteroids and immunosuppressants, which cannot be administered continually due to adverse events. Therefore local delivery of encapsulated corticosteroids and immunosuppressants will be investigated using two types of organic biodegradable nanocarriers to prevent side effects. The targeting strategy is based on passive targeting towards inflamed tissues. Three delivery forms will be tested in order to maximise accessibility to the gastrointestinal tract, and formulations and nanopharmaceuticals will be assayed both in vitro and in vivo.