## Advanced knowledge to develop background disciplines



Advanced mass transport phenomena

Membrane Module Design

Hepatic tissue engineering

Computational Fluids dynamics (emphasis on multiphase flow)

Kinetics and thermodynamics of cellular biological reactions

Mass transport in porous media – theoretical concepts, multicomponent systems

Modelling flow and mass transfer in bioreactors for tissue engineering

In vitro testing of device with human blood

Preclinical testing of bioartificial devices

In vitro testing of haemocompatibility (blood/membrane interactions)

Clinical studies with EC-labelled and non-EC labelled medical devices

