Lecturer: Vittorio Farina (Proposed by Dr. Alessandro Mordini)

Topic: Process development in the pharmaceutical industry

Course summary

The course will serve as an introduction to the development of the chemistry strategies needed to prepare APIs (active pharmaceutical ingredients). The API will be defined on the basis of current regulatory and analytical requirements. This will be followed by some notions of synthesis and process selection and optimization, as well as impurity management. Special attention will be placed on solvent and reagent selection. Notions of chemical engineering as applied to scale-up will be included. Finally, the application of very useful special technologies will be covered, e.g., organometallic catalysis, biocatalysis and separation techniques.

Type of Assessment: written test: written critical discussion (short essay) of a case-study/literature article that involves the techniques explained in the course). Max 5000 words. The final evaluations will have to be validated maximum 1 month after the end of the course.