

# SPRING SCHOOL 2020



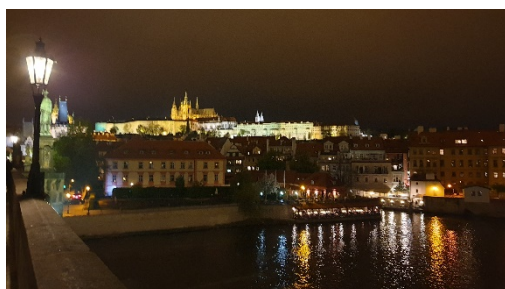
## Characterization techniques for biomaterials

30<sup>th</sup> March – 3<sup>rd</sup> April 2020, Prague, Czech Republic

This course is intended for PhD students with background in chemistry, biotechnology, biomedical or pharmaceutical and related fields. We will cover a wide range of techniques applied in the characterization of biomaterials, developed as both nanoparticles and as (nano)layers. The measurements include assessment of thickness and refractive index, surface morphology, monitoring of interactions with proteins and protein corona formation, chemical analysis, nanoparticle sizing and surface charge determination as well as others. The course will consist of lectures, demos (experienced technicians will show the instruments in action) and hands-on exercises, where students can run the instruments on their own under supervision of an expert.

The techniques that will be covered include:

- Ellipsometry
- Dynamic Light Scattering (DLS)
- Multi-Parametric Surface Plasmon Resonance (MP-SPR)
- Quartz Crystal Microbalance with Dissipation (QCM-D)
- Atomic Force Microscopy (AFM)
- Scanning Electron Microscopy (SEM)
- X-ray Photoelectron Spectroscopy (XPS)
- Gel Permeation Chromatography (GPC)
- Field Flow Fractionation (FFF)
- Fourier Transform Infrared (FTIR) Spectroscopy
- Surface preparation techniques



Cost: Free for NanoPol members / 300 EUR for others.  
The cost includes course materials, snacks and lunches.

Applications: Please submit your CV with a cover letter to [info@nanopol.eu](mailto:info@nanopol.eu). The **submission dead-line** is **28.11.2019** for NanoPol members and **10.1.2020** for non-members. In your submission, please remember to add your ResearchGate or OrchidID link, state the name of your supervisor and his/her contact information. Provided that you will be selected, you will receive a letter of acceptance by January 15<sup>th</sup> 2020.

Accommodation: There is a quota for shared rooms at reasonable prices. More information will be available to those who will be accepted to the course.

At the end of the course, you will receive a certificate, but NO CREDIT POINTS will be granted.

Further information about the course will be found in [www.nanopol.eu/spring2020](http://www.nanopol.eu/spring2020)

Main organizer:



INSTITUTE OF  
MACROMOLECULAR  
CHEMISTRY  
CZECH ACADEMY OF SCIENCES

In collaboration with:



Other NanoPol participating organizations:



This project has received funding from the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement NanoPol 823883.

NanoPol project focuses on Nanopharmaceutics in Ocular Drug Delivery.