

## **Program day 2 (GPC experiences)** **29 November 2023**

- 8:30h: Welcome,  
Day 1 Summary, Day 1 Questions (Small Molecules)
- 9:00h GPC/SEC: Why is knowledge of "other HPLC separation mechanisms" important?  
Topic: Error prevention GPC/SEC. Basics of GPC/SEC, molecular quantities.
- 10:30h Coffee break
- 10:45h Method evaluation GPC/SEC I:  
Proper solvency selection, proper column selection (chemistry), proper porosity selection,  
proper sample preparation.  
I a) Water-soluble polymers  
I b) Medium polar polymers (in DMSO, DMF, NMP, DMAc)
- 12:15h Lunch break
- 12:45h Molar mass determination, calibration, molar mass values ( $M_w$ ,  $M_p$ ,  $M_n$ ,  $M_{eta}$ ,  $M_z$ ).  
Relative/ conventional molar mass determination, absolute methods (GPC/SEC Viscosity  
measurement/universal calibration, GPC/SEC light scattering measurement)  
Calculation molecular sizes, molecular masses.
- 14:45h Coffee break
- 15:00h Method evaluation GPC/SEC II:  
II a) Crystalline polymers (in HFIP)  
II b) Hydrophobic polymers (in THF, toluene,  $CHCl_3$  and others)  
II c) Polyethylene, Polypropylene etc. (high temperature GPC)
- 16:30h Discussion
- 17:00h End of day 2