SEC-MALLS Guidelines

- Send an email to the platform Manager to request a training.

- Users have to fill the online "booking request form" on the ISBG webpage: http://www.isbg.fr/caracterisations-biophysiques/plateforme-biophysique-cibb/?lang=fr When the booking is validated, the user will receive a confirmation email and their name will appear on the booking calendar.

- The equilibration of the system/column is done overnight. Usually, the column is connected at the end of the afternoon the day before the experiment and equilibrated overnight at 0.2 mL/min.

- Precaution for the use of the columns
- Flow used is 0.5 mL/min
- Column to be connected on the MALLS system has to be in water or buffer
- Elution buffer should be de-gazed and filtered at 0.22µm
- The platform DO NOT run columns upside down & DO NOT accept packed columns.

- The biophysical platform do not provide SEC columns, user have to bring their own columns. Please note that the column listed below are accepted:
- Superdex 200 30/100
- Superdex 75 30/100
- Superose 6 30/100
- If another column has to be used, please contact the Platform Manager before.

- Note that:
- the last injection of the day should not be done after 4:00 pm in order to allow time to set up the equilibration of the next user.
- 1 run takes 50 min at 0.5 mL/min
- one buffer and one column per day
- Book number of days accordingly

- Instructions for the samples
- The sample volume required for one injection is 55 µl
- The purity of the sample should be 90%
- The sample concentration should be between 2 and 10 mg/mL
- Samples have to be centrifuged and/or filtered before injection
- Samples are not stored
- A guideline concentration is 2 mg/ml of protein and a minimum volume of 50 µl is required. Lower concentrations may not give very good light scattering signal (sample dependant). Small proteins (< 15 kDa) will give low light scattering signals and may need a higher concentration.

- For each experiment, data acquisition record must be completed on the SEC-MALLS logbook:

- Record the details of the experiments
    - Name / Surname
    - Date
    - Column
    - Buffer
    - Light Scattering (LS) Value (should be ~ 0,03)
    - List of experiments collected:
    - ExpXXXX BSA 4 mg/mL 50uL
- Record any anomalies

- Standard protocol for using the SEC-MALLS system and reference manuals for the software ASTRA can be consulted on site.

- At the end of each booking period, you must put the system in filtered/de-gazed H2O, Ensure that the experience stops

DATE ET VISA DU RESPONSABLE APPAREIL : Caroline Mas 26/03/2021