**PROJECT PROPOSITION - Lab1** (M1, second semester)

Supervisor(s): Cherine Bechara

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Hosting lab: IGF

Period of proposed project (put **x** instead of ロ):

ロ Only 1st slot x Only 2nd slot

ロ One slot, but I have no preference on which ロ Both slots (with different groups)

1st slot: thursdays and fridays, from 3/2/2021 to 18/3/2021

2nd slot: thursdays and fridays (except for the last 2 weeks), from 31/3/2021 to 6/5/2021

PROJECT’S TITLE

Subject (5 lines max for the description)

The project aims to unveil key structural and mechanistic elements for *Staphylococcus aureus* bicomponent leucocidins binding to human chemokine receptors which leads to cell death. For that, trainees will purify toxins and receptors and analyze their interactions by structural mass spectrometry.

Technical tools to be used: Affinity purification, size exclusion chromatography, HDX-MS analysis, native MS analysis.

Objectives: Identify the conformational changes within the toxins upon receptor binding.