PROJECT PROPOSITION - Lab1- 2023

(M1, second semester)

Supervisor(s): Julien Capin, Martin Cohen-Gonsaud, Jerome Bonnet, Josephine Lai Kee Him

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Hosting lab: CBS

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

X Only 1st slot

Only 2nd slot

□ One slot, but I have no preference on which groups)

□ Both slots (with different

1st slot: 12 days to be selected later between 1/16/2023 to 2/24/2023- see next page for info
2nd slot: 12 days to be selected later between 3/6/2023 to 5/12/2023- see next page for info

Engineering and tuning bacterial biosensors

Subject

The students will participate in visualizing synthetic bacterial membrane receptors localization in resting and activated states using CryoEM. They will also test in parallel the response of these receptors. These receptors are key elements controlling biosensors with diagnostics and therapeutic applications, and a deeper understanding of their operating mechanism is key for a better engineer of their behavior.

Technical tools to be used:

Molecular biology
Cytometry, plate reader, CryoEM

Objectives:

Monitor the activity of bacterial biosensors equipped with synthetic receptors. Prepare cells for CryoEM, label and visualize membrane receptors.

		Lundi	Mardi	Mercredi	Jeudi	Vendredi
Periode 1	16 au 20/01					
	23 au 27/01					
	30/01 au 03/02					
	06 au 10/02					
	13 au 17/02					
	20 au 24/02					

		Lundi	Mardi	Mercredi	Jeudi	Vendredi
Periode 2	06 au 10/03					
	13 au 17/03					
	20 au 24/03					
	27 au 31/ 03					
	03 au 07/04					
	10 au 14/04					
	17 au 21/04					
	24 au 28/04					
	02 au 05/05					
	08 au 12/05					