LECTURE SERIES 2026

CANCER RESEARCH

LUXEMBOURG INSTITUTE OF HEALTH | UNIVERSITÉ DU LUXEMBOURG

12 MAR 2026
Thursday

LECTURE
11.00am - 12.00pm

MEET & EAT *
Coffee and desserts provided
Salle Robin Holiday
2.30pm - 3.00pm

6 7 8 9 10 11 12 1 2 3

Epigenomic evolution of breast cancers at single cell resolution

ABSTRACT

The dynamic nature of chromatin and transcriptional features are expected to participate to tumor evolution. Our group focuses on the study of the dynamics of histone modifications in cancer cells upon cancer treatment as well as during the initial steps of tumorigenesis. We develop experimental and computational approaches to map histone marks at single-cell resolution, enabling the investigation of the dynamics of chromatin marks in model systems and human samples. We have for example combined single-cell epigenomic and transcriptomic approaches to lineage tracing strategies to reveal the initial epigenomic events driving tolerance to chemotherapy in triple-negative breast cancer. We have shown that the repressive histone mark H3K27me3 is a lock to the activation of a drug-persistent expression program in breast cancers. Using demethylase inhibitor in combination to chemotherapy, we improve the response rate and delay recurrence both in vitro and in vivo. We also study mechanisms of cell plasticity in early breast tumorigenesis in vivo. We have recently mapped state transitions during Brca1-tumorigenesis in the mouse. We discovered that luminal progenitor cells undergo a major epigenomic disruption prior to a partial epithelial to mesenchymal transition at the onset of tumorigenesis.

SPEAKER

Prof. Celine Vallot
Senior PI Institut Curie, Paris

HOST:

Luxembourg Institute of Health

RESPONSIBLE SCIENTIST:

Dr Sabrina Fritah (Sabrina.Fritah@lih.lu)

***Please note that registration for Meet and Eat is mandatory via the following link:**
https://lsurvey.lih.lu/index.php/789881

Location:

Lecture:
CHL - Centre
Room: ***Amphitheatre***

4, rue Ernest Barblé
L-1210 Luxembourg

JOIN

Event number: 2731 931 9587
Event password: z6eFN4b23nj

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