LECTURE SERIES 2025

CANCER RESEARCH

LUXEMBOURG INSTITUTE OF HEALTH | UNIVERSITÉ DU LUXEMBOURG

13 OCT 2025

Monday

LECTURE 11.00am - 12.00pm

MEET & EAT * 12.00pm - 1.00pm

Light lunch provided

Salle Salle Louis Pasteur + Salle Marie S. Curie

Glioma cellular heterogeneity in space and time

ABSTRACT

One of the main barriers for successful treatments of glioma is the diversity of cells within each tumor. We have previously defined the patterns of cellular diversity in several types of glioma, including glioblastoma and IDH-mutant glioma, highlighting few recurring cellular states in each glioma type. I will describe recent studies in which we examine how these states are spatially organized and how they change following treatments and recurrence. Spatially, we find that some tumor samples are disorganized while others have a stereotypical organization composed of five layers. These layers highlight the role of hypoxia as a tissue organizer. We also explore the states of cells outside of the tumor – those that invade the brain parenchyma and that cause gliomas to recur. Following treatments, we find that cells in most gliomas maintain largely the same states that are observed in the primary tumors. However, tumors with evidence of treatment response show specific signatures of those responses. In particular, in IDH-mutant glioma we find that new treatments induce cellular differentiation, highlighting the potential of differentiation therapies in the context of glioma.

SPEAKER

Prof Itay Tiroh

Principal Investigator, Dept. Of Molecular Cell Biology,
Weizmann Institute of Science

HOST:

Luxembourg Institute of Health

RESPONSIBLE SCIENTIST:

Alessandro Michelucci (Alessandro.Michelucci@lih.lu)

***Please note that registration for Meet and Eat is mandatory via the following link:**
https://lh1v-limsrvey01.lih.lu/index.php/172258?lang=en

Location:

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

4, rue Ernest Barblé
L-1210 Luxembourg

JOIN

Event number: 2790 737 8560
Event password: krV4pwb5ZZ9

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