

27 MAR
2025Thursday
LECTURE

MEET & EAT *

Light lunch provided

11.00am - 12.00pm

12.00pm - 1.00pm



Novel strategies of anti-tumor vaccines based on optimal presentation of tumor antigens to CD4+ T cells

ABSTRACT

Although relevant progress has been made in immunotherapy of cancer by the use of immune checkpoint inhibitors and, in part, by therapeutic vaccines, unfortunately both approaches have revealed limitations for most tumor types. In particular, vaccination strategies using MHC class I-bound tumor-specific peptides have encountered critical difficulties due to the limited effect of these vaccines in stimulating and maintaining MHC class-I restricted tumor specific CD8+ effector cells (CTL). Our working hypothesis prioritizes, instead, the triggering of tumor-specific MHC class II (MHC-II)-restricted CD4+ T helper (TH) cells, as these cells, hierarchically, are fundamental to both initiate all adaptive immune responses and maintain the proliferation and cytolytic activity of CTL, the terminal effectors of anti-tumor immunity. Thus, in our view, without strong and persistent activation of tumor specific TH cells, the success of immunotherapeutic vaccination approaches for cancer will be limited. Our approach, based on previous solid experimental results, is to render tumor cells MHC-II positive and then surrogate antigen presenting cells (APC) for their own tumor antigens to TH cells. This is obtained by transferring the MHC-II transactivator (CIITA) discovered in our laboratory, into tumor cells. A special case will be dealt with in my seminar regarding the glioblastoma, a still untreatable tumor. I will show how our strategy is providing new knowledge to increase and sustain the adaptive immune response against tumors and hopefully offer novel therapeutical tools to improve treatment of them in clinical settings.



SPEAKER

Prof Roberto Accolla

Emeritus Professor of Immunology and General Pathology

HOST:

Luxembourg Institute of Health

RESPONSIBLE SCIENTIST:

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*Please note that registration is mandatory for meet and eat by sending an email to Pascale.Baden@lih.lu

Locations:

Lecture:

Luxembourg Institute of Health
Salle Louis Pasteur; Salle Marie S. Curie
1 A-B rue Thomas Edison
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To join the Webinar:

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Event number: 2734 875 1686

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