

# Immunotherapy in HIV infection; current and future challenges

Yves Lévy

► **To cite this version:**

Yves Lévy. Immunotherapy in HIV infection; current and future challenges. 16th International Symposium on HIV and Emerging Infectious Diseases, Mar 2010, Marseille, France. pp.113, 10.1186/1742-4690-7-S1-I13 . inserm-00663752

**HAL Id: inserm-00663752**

**<https://www.hal.inserm.fr/inserm-00663752>**

Submitted on 27 Jan 2012

**HAL** is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.



INVITED SPEAKER PRESENTATION

Open Access

# Immunotherapy in HIV infection; current and future challenges

Yves Lévy

From 16<sup>th</sup> International Symposium on HIV and Emerging Infectious Diseases  
Marseille, France. 24-26 March 2010

Administration of HAART has resulted in significant improvements in the survival of HIV-infected patients. However, despite now reaching a point where we can achieve durable, maximal suppression of plasma viral load in most of our HAART-treated patients, non-AIDS-related morbidity and mortality among these patients remain a concern. Conditions typical of aging, such as cardiovascular disease and cancer, are seen at a higher rate in HIV-infected patients compared to the general population, potentially because the ability of HAART to restore immunocompetence appears incomplete—even in patients who have long-term undetectable HIV-1 RNA.

New insights into the pathogenesis of HIV-1 infection highlight several new and promising areas of investigation for immune-based therapies, including strategies that target T-cell homeostasis and immune activation, as well those targeted at restoring immune responses directed against HIV.

The rationale behind the investigation of a of cytokines such as IL-2 and IL-7 as adjunctive therapies to antiretroviral treatment is to improve the restoration of the immune system and improve HIV-directed immune responses. Among cytokines, IL-2, was extensively studied in several phase II and two large phase III studies. Results from these studies showed that IL-2 increases significantly CD4 counts in the long term. However, this biological effect did not translate into clinical benefit. These results raise several questions about the functionality of IL-2 expanded CD4 T cells that will be discussed.

The potential interest of IL-7 is based on its crucial role on T cell homeostasis both in thymic output and peripheral T proliferation and survival. This new promising cytokine is currently under evaluation is several

I/II clinical trials in chronically HIV-infected patients with low level of immune restoration despite controlled viral load. Results from these studies will be presented and discussed.

Published: 11 May 2010

doi:10.1186/1742-4690-7-S1-I13

Cite this article as: Lévy: Immunotherapy in HIV infection; current and future challenges. *Retrovirology* 2010 7(Suppl 1):113.

## Submit your next manuscript to BioMed Central and take full advantage of:

- Convenient online submission
- Thorough peer review
- No space constraints or color figure charges
- Immediate publication on acceptance
- Inclusion in PubMed, CAS, Scopus and Google Scholar
- Research which is freely available for redistribution

Submit your manuscript at  
www.biomedcentral.com/submit

