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New therapy preserves CD4 T cells and prevents disease progression in SIV-infected Rhesus macaques

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CD4 T cell depletion is a hallmark of AIDS. Apoptosis has been proposed as one of the main mechanisms responsible for the depletion of CD4 T-cells. We identified a new compound capable *ex vivo* of inhibiting death of CD4 and CD8 T cells isolated from SIV-infected rhesus macaques, and improving T cell proliferation. We evaluated *in vivo* its efficacy in macaques infected by SIVmac251. This compound was injected during the acute phase of infection. Immune and viral load parameters were monitored during the acute phase and there after. We observed that the level of the death of CD4 and CD8 T cells was reduced. The pool of central and effector memory CD4 T cells is preserved in the treated monkeys compared to untreated animals. These treated animals displayed a lower level of viral replication. In conclusion, this synthetic compound may represent a new drug in the arsenal to fight against HIV.

Biography

Mireille Laforge has completed her PhD in Immunology in 2006 from Paris-Sud University, at Paris and postdoctoral studies in the laboratory Inserm U955 with Dr. Jerome Estaquier, then in the unit CNRS FRE3235 at Paris-Descartes University, Paris. She has published more than 14 papers in reputed journals and works on programmed cell death in physiopathology, especially in HIV infection and Aids.

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