Letter to the editor

AIDS: The genomic hole

What’s a hole? “All opening performs in hollow in a matter”. In the biologic area AIDS is a pertinent example of this definition. Its vector, the HIV, accumulates some originalities. The main characteristic of this microbe is to have the immune system itself for target. It grapples specifically — till to destroy it — the more refined apparatus of the biologic evolution. The one which drive back all that is foreign to its own structure. Missile anti-missile, the HIV hits the “heel of Achille”, the weak side of the cuirass.

Human genome is sequenced. With the exception of some reading errors we know the alignment of the characters, the signification of most words, even if we are still far to understand all the sentences. In this literature barely deciphered remain some (may be many) blanks. HIV and its relations with the genome belong probably to this club. In spite of some ape-like analogies and vague attempts of substitutions (transplantation of human immune cells in conditioned animals), there is no animal model of AIDS. Already seen from this side, species specificity, the HIV marks out its hole.

Pragmatism and intellectual ease helping, the biologists pounce on the pastorian notion of the vaccine. With 20 years hindsight and in spite of enormous financial and human investments the failure is obvious.

In this instance, must not the theory succeed to the practise? So the hypothesis is this “miss-wedding”: HIV strikes the heart of a genome (human) which have, during millions of years of recombinations, created a self-protection system against all (or almost) foreign aggressions against a organism of which it is the host and the programmer. It’s this kind of forgetting that we design as genomic hole.

The first corollary of the hypothesis is that the classical vaccinal track is an illusion.

The clarification of the mechanism(s) of natural resistance to HIV infection [1,2], up to date, seems to us the more rational way to build an effective pharmacological prevention of this eccentric infection.

References

Jean-Yves Follézou
CHU Pitié-Salpêtrière, Bd de l’Hôpital, 75013 Paris, France
E-mail address: follezou.jeanyves@neuf.fr

25 January 2007