Centers for Discuse Control Center for Infectious Discoses Division of Viral Discuses

For use only By Dr. Mason in his one-on-one meeting w.

The finding of antibodies to retrovirus antigens in the serum of many AIDS and LAS patients has focused investigation on the ethologic role of particular retroviruses in these diseases. Most recently, focus has been centered on a house retrovirus from France called lyr, hademopathy virus (LAV). Based upon sorologic studies done in collaboration with the Institut Pasteur (Cherminn, Montagnier and colleagues) and NIH (Callb), it is clear that a high proportion of individuals with AIRS or 148 and a significant proportion of individuals belonging to AIDS risk group; have been infected with LAV or a related virus. Virus isolation studies initially done at the Institut Pastour and now at CDC, indicate that infection with IAV virus perse in the basis for the sempositivity being massived. Now there is additional proof that LAV may be eriologically, rather than opportunistically associated with AIDS:

Ar CDC, a human retrovirus indistinguishable from LAV has been cultured from the blood of a blood denocarecipic it pair, each of whom subsequently developed AlDS. The donor was a 22 year old homosexual male, the recipient a 36 year old worah who required blood during surgery, but was not a member of any AIDS 15.8 group. The donor developed AIDS one month after denating blood; the sucipient developed ALDS 13 of the after the transfusion. The virus isolations from both were made from blood specimens drawn 13 months after the transfusion. The virus was isolated by corcultivation of patient lynglocytes with normal fetal cord blood lynghocytes and also by infaction of the latter with cell fine supernatarits from the original patient lymphocyte cultures. The virus was obstractorized by:

a) Reserve transcriptuse settletty Characteristics

b) In note processe using range sites of them 1gG containing righ LAV titers

c) Slatron microscopy

d) F Meta Troprecipitation and competitive publisher increases

In each case the virus isolated from the donor recipient pair were indistinguishable from LAV, and doublodly different from Hiller. For comple, the folderstressence reaction, which had an end point titer of 1:500 with the isolates and LAV (France), had an end point titer of less than 1.100 with ETLY-I. The nature of the isolates in post descritically deploted in the electron elegants of infected lagrangers. Virus particles are abordent to these described in the initial LAV characterization, and very different from B.LV-I particles. (The family of retroviruses in large and a ottins wireses with rather different proportios and this stage of investigation the CoC feedates, and LAV, first of very resorble a sofgroup of retrictions, called testification, a subgroup which includes equine infectious a lexia virus and visua virus of sheep.) Carleire XCs of this and XC of the Letter from Mason to Health officers (on wang this morning by Barbara Itale)

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The finding of antibodies to retrovirus antigens in the serum of many AIDS and LAS patients has focused investigation on the etiologic role of particular retroviruses from France called lymphadenopathy virus (LAV). Based upon serologic studies done in collaboration with the Institut Pasteur (Chermann, Montagnier and colleagues) and NIH (Gallo), it is clear that a high proportion of individuals with AIDS or LAS and a significant proportion of individuals belonging to AIDS risk groups have been infected with LAV or a related virus. Virus isolation studies initially done at the Institut Pasteur and now at CDC, indicate that infection with LAV virus per se ins the basis for the seropositivity being measured. Now there is additional proof that LAV may be etiologically, rather than opportunistically associated with AIDS.

At CDC, a human retrovirus indistinguishable from LAV has been cultured from the blood of a blood donor-recipient pair, each of whom subsequently developed AIDS. The donor was a 22 year old homosexual male, the recipient a 36 year old woman who required blood during surgery, but was not a member of any AIDS risk group. The donor developed AIDS one month after donating blood; the recipient developed AIDS 13 months after the transfusion. The virus isolations from both were made from blood specimens drawn 13 months after the transfusion. The virus was isolated by co-cultivation of patient lymphocytes with normal fetal cord blood lymphocytes and also by infection of the latter with cell free supernatants from the original patient lymphocyte cultures. The virus was characterized by:

- a) Reverse transcriptase activity characteristics
- b) Immunofluoresence using conjugates of human IgC containing high LAV titers
 - c) Electron microscopy
- d) immunoprecipitation and competitive radioimmunoassay

In each case the virus isolated from the donor recipient pair were indistinguishable from LAV, and decidedly different from HTLV-1. For example, the immunofluoresence reaction, which had an end point titer of [] with the isolates and LAV (France), had an end point titer of less than [] with HTLV-1. The nature of the isolates in most dramatically depicted in the electron micrographs of infected lymphocytes. Virus particles are identical to those described in the initial LAV

characterization, and very different from HTLV-1 particles. (The family of retroviruses in large and contains viruses with rather different properties--at this stage of investigation the CDC isolates, and LAV, most closely resemble a subgroup of retroviruses, called lentiviruses, a subgroup which includes equine infectious anemia virus and visna virus of sheep.)