FACT SHEET

AIDS Drug Development Program at NCI

The National Cancer Institute, under the direction of Dr. Vincent T. DeVita, Jr., is one of several National Institutes of Health components responding to the AIDS national emergency. Under provisions of the 1971 National Cancer Act, NCI has been able to apply cancer research and technology to the solution of the AIDS problem.

For example, the NCI research on cancer viruses was quickly applied by Dr. Robert Gallo in his successful search for the AIDS virus. This identification of the AIDS virus quickly led to the AIDS blood tests and is the basis for the ongoing search for a vaccine and the work in developing AIDS drugs.

Under the leadership of Dr. Samuel Broder, Associate Director for Clinical Oncology, NCI has developed several drugs effective in treating AIDS. The first of these, AZT (azidothymidine), became widely available last fall and now is available by prescription for the majority of AIDS patients. AZT reduces the occurrence of life-threatening opportunistic infections and has been particularly effective in treating the dementia frequently seen in AIDS patients. New studies are under way to see if AZT's effectiveness is enhanced when combined with other antiviral agents, acyclovir or DDC (dideoxycytidine).

Dr. Phillip Pizzo, Chief of the NCI Pediatric Branch, is studying AZT's effectiveness in treating children with AIDS. Of the five children in his
study with neurological deficits or learning disabilities, all have shown improvement.

Dr. Broder has DDC in early clinical trials and has shown in laboratory studies that DDA (dideoxyadenosine), a compound similar to AZT and to DDC, has promise. DDA will soon be tested in AIDS patients.

Dr. Bruce Chabner, Director of the NCI Division of Cancer Treatment, determined that trimetrexate, an anticancer agent, is effective in treating AIDS patients with pneumocystis pneumonia who have not responded to standard treatments. The Food and Drug Administration's new regulations will allow trimetrexate to be rushed to doctors who treat AIDS.

The NCI AIDS drug development program grew out of the Institute's sophisticated program to screen and develop anticancer agents. Compounds screened for effectiveness in treating AIDS come from government laboratories, university centers, and private sector laboratories. The drug development program encourages involvement of private sector companies, which ultimately market drugs found effective. Burroughs Wellcome Co. markets AZT. DDC has been licensed to Hoffmann-LaRoche, and the license for DDA is expected to be awarded within the next few weeks.

Compounds showing effectiveness against AIDS in early NCI studies are moving into expanded studies, as are drugs from other sources. The expanded studies are conducted primarily by special AIDS Treatment Evaluation Units, supported by the NIH National Institute of Allergy and Infectious Diseases. So far, the units have enrolled nearly 1,000 patients in about 18 studies.

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All of the human AIDS studies are listed in NCI's computerized database, PDQ. Any physician in the country can check PDQ to determine the nature and location of studies for all types of cancer and for AIDS, and how to admit patients to those studies.