



Update

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NIAID Funds AIDS Reagent Repository

The National Institute of Allergy and Infectious Diseases (NIAID) has awarded a five-year contract to ERCI Facilities Service Corporation based in Fairfax, Virginia, to establish and operate a reference and research reagent repository to facilitate AIDS research. The total projected funding for the repository is approximately \$7.7 million for 1988 through 1992. Advanced Biotechnologies Inc., a subcontractor to ERCI, will be responsible for reagent assay and evaluation. The repository, which is also designated as one of several World Health Organization (WHO) AIDS repositories, is expected to be operational by April 1988. Materials from the repository will be available to any qualified investigator--NIAID-supported or not--whose research relates to AIDS.

When fully operational, the repository will be a clearinghouse for biological and chemical substances required for AIDS research. These will include available clones of the human immunodeficiency virus (HIV), HIV-2 (the AIDS virus found primarily in West Africa), the closely related simian immunodeficiency virus (SIV), other related retroviral and cellular proteins, and plasmids that express viral enzymes. The repository will also contain standardized reference antisera (antibodies), and monoclonal antibodies to primate retroviruses. Biological response modifiers such as lymphokines, cytokines, and monokines (cellular hormones that influence cell function), and chemicals or drugs used to modulate the immune system will be standardized and distributed to the scientific community. At present, only the interferons have an international reference standard; these other biological response modifiers have no reference units.

A survey is being sent to approximately 1400 researchers worldwide, chosen from scientific literature, to obtain a consensus about what reagents should be included in the repository. All reagents will be available as standards in quantities sufficient to compare the activity or purity of proteins being obtained by research laboratories. Comparison of various reagent samples by the repository scientists will also allow standardization of reagents within the repository, and determination of the most active products.

Materials from the repository will be given out for research purposes only, and with assurance that the recipient will not give the material to a third party. (Reagents will not be given out for therapeutic use, or for purification purposes for commercialization.) Each organization donating a reagent will receive information about requests for the reagent, such as who has requested it. Any organization that donates a reagent to the repository will be listed in the repository's biannual catalog of reagents and will be cited in informational material about the reagent. The repository will be represented at all appropriate scientific meetings. NIAID is collaborating with WHO to make the repository available to AIDS researchers worldwide.

AIDS, first recognized in 1981, is now a global epidemic. The Centers for Disease

Control (CDC) estimate that between 1.5 and 2 million Americans are currently infected with HIV. More than 52,000 cases of AIDS have been reported to the CDC since 1981 and about 60 percent of these people have died.

Research on AIDS at institutions around the world is progressing at an unparalleled rate. Nonetheless, much remains to be learned about HIV, and how it interferes with normal function of human cells. HIV preferentially infects a crucial part of the immune system, the T4 cells, that coordinate and direct the many immune response components. When T4 cells are unable to perform their normal role, the immune system collapses and is unable to defend the body from microorganisms and certain types of cancer.

Basic research--for example, to determine precisely how HIV interacts with a CD4 receptor on a T4 cell to gain entry to the cell, or what causes latent (inactive) HIV to become active and cause disease--often requires difficult-to-obtain experimental materials. Because this research is necessary to provide information to design prevention strategies and effective therapies, the repository has been established to expedite availability of critically needed research materials.

NIAID needs access to significant quantities of AIDS research-related reagents to support its rapidly expanding AIDS research efforts. Extramural research includes initiatives such as the National Cooperative Drug Discovery Groups, the National Cooperative Vaccine Development Groups, the AIDS Clinical Trials Units, and the Programs of Excellence for Basic Research on AIDS. Intramural AIDS research ranges from studies of HIV, and how it interacts with human cells, to development of animal models of HIV infection. Although some of the reagents needed for AIDS research are available from NIH laboratories and other places, a centralized resource is able to acquire and store, as well as standardize, a greater number of reagents more easily than individual laboratories.

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