

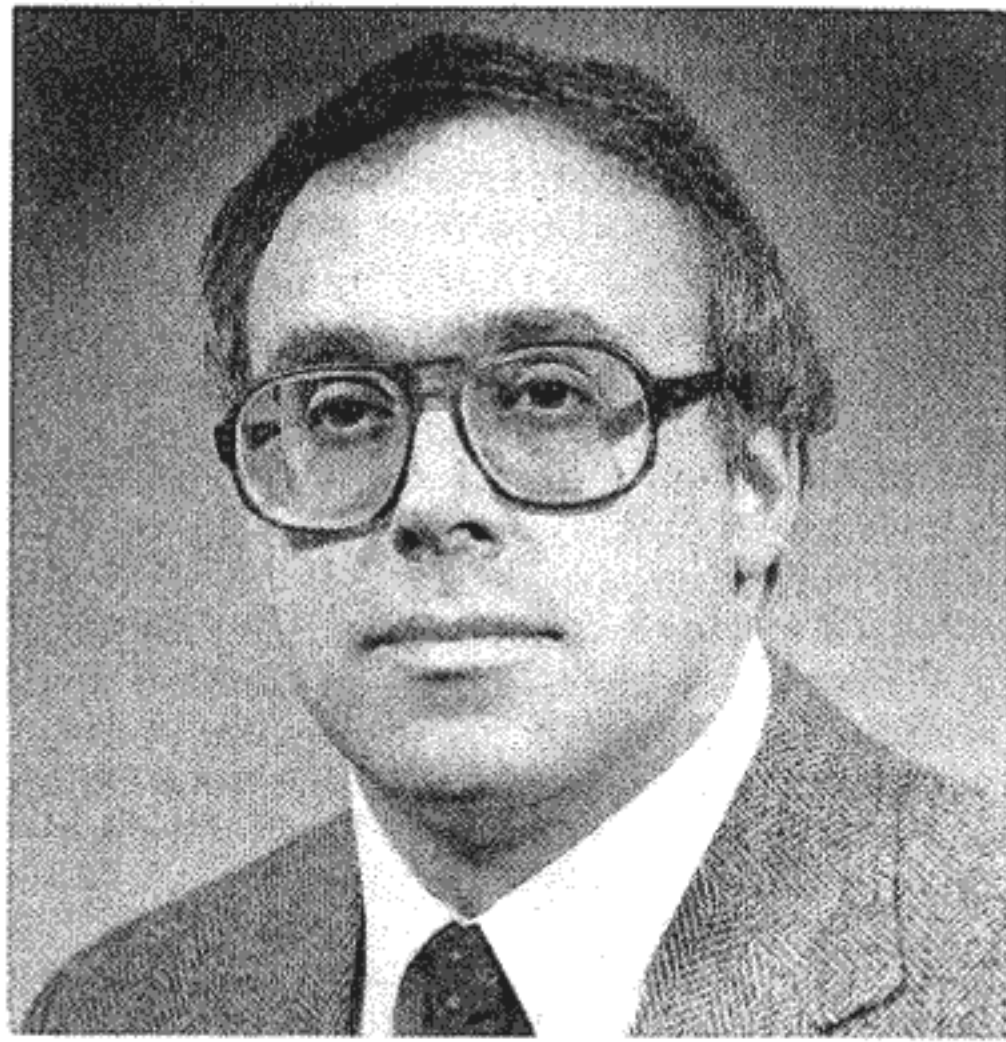
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Dr. Jeffrey Schlom, NCI, Gains New Research Honors



Dr. Schlom

Dr. Jeffrey Schlom, chief, NCI Laboratory of Tumor Immunology and Biology, Division of Cancer Biology and Diagnosis, recently received two honors for his work on monoclonal antibodies.

Dr. Schlom delivered the annual George Gross Memorial Lecture June 16 at the Beth Israel Medical Center in Newark, NJ. His lecture was entitled "Monoclonal Antibodies: Their Potential in Prognosis, Diagnosis, and Therapy of Cancer." NCI Director Dr. Vincent T. DeVita, Jr., is a previous George Gross lecturer.

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Play It Safe With Electricity

"In view of the recent tragedy that occurred on the NIH campus, we feel it is an important time to discuss electrical safety hazards and precautions with all NIH employees," said Roland Corsey, Biomedical Engineering and Instrumentation Branch, Division of Research Services. Mr. Corsey runs the electrical safety program for patient-related electrical equipment in the Clinical Center and is the Chairman of the Clinical Center Safety Committee.

Mr. Corsey has outlined for NIH employees some of the things that require attention when dealing with electrical equipment.

- A tingling sensation when touching

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AIDS Research Sponsored by NIAID, NHLBI Aimed at Blood Test and Ties, Infectious Agents

AIDS, a recently recognized condition of unknown cause, is a severe suppression of the body's immune system leading to disorders that include Kaposi's sarcoma, which is a rare tumor of the blood vessel walls, and opportunistic infections such as Pneumocystis carinii pneumonia.

AIDS occurs primarily among homosexual or bisexual men with multiple sex partners, intravenous drug abusers, recent Haitian entrants into the U.S., and hemophiliacs. As of Aug. 15, there had been 2,094 cases of AIDS reported, with 805 deaths. So far, the immune suppression has not been reversed in any AIDS patient.

The cause of the disease and mode of transmission are unknown but it appears to be primarily transmitted through sexual contact; to a lesser degree, through contaminated needles used by intravenous drug abusers and, rarely, through a blood component given to hemophiliacs. An infectious agent—a new virus, for example, or one that has mutated from a known virus—is a major suspect.

NIAID

A 3-year, \$1.7 million contract with the New York Blood Center and Memorial Sloan-Kettering Cancer Center in New York City to collect specimens of blood and other body secretions from potential acquired immune deficiency syndrome (AIDS) victims has been announced by the National Institute of Allergy and Infectious Diseases.

Investigators will use the specimens to try to find the infectious agent or agents that may be responsible for AIDS. They will also look for any changes in specific blood cells that may predict the disease.

Many specimens of blood and body secretions have been collected from patients who have already been diagnosed as having AIDS. However, scientists believe that the disease probably is transmitted several months before signs of AIDS appear.

This new contract is specifically designed to collect specimens during the time the risk group may be exposed and get AIDS but before symptoms appear.

The blood center and cancer center in New York will provide NIAID with specimens of blood and other body secretions from 325 male homosexuals.

Three groups of volunteers will be recruited. One group will include individuals with unexplained generalized swollen lymph nodes, persistent weight loss, and persistent fever. These symptoms may be early signs of AIDS.

The second group will consist of healthy homosexual males who regularly donated plasma and serum samples to the New York Blood Center in the past. Many such samples are in storage and can be used in the study.

A third group of male homosexuals, who live in an area where AIDS is uncommon, will serve as unexposed controls.

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NHLBI

Requests for Proposals (RFP) and for Applications (RFA) for two new research initiatives on acquired immune deficiency syndrome (AIDS) have been announced by the National Heart, Lung, and Blood Institute.

NHLBI's proposed projects are aimed at developing a specific blood screening test to identify AIDS carriers before they develop symptoms, and a 5-year study to determine the association between the use of blood and blood products in the spread of AIDS.

Estimated funding for these projects is \$4.4 million.

The Institute invites the scientific community to submit applications for research grants and contracts on these projects to the NHLBI Division of Blood Diseases and Resources.

The RFA initiative seeks grant proposals aimed at developing a specific test to identify carriers of AIDS with no symptoms. Scientists have speculated that a person who contracts AIDS may spread the disease to others before symptoms occur.

Presently no such screening test exists, but once found, it could help identify carriers and allow physicians to begin treatment before the victim enters advanced stages of the disease.

The RFP initiative is to solicit contract proposals for a 5-year study to determine if there is any association between use of blood products and development of AIDS. The study will examine alterations in immune function and other biological functions among patients receiving many blood transfusions to see if these alterations are related to susceptibility to AIDS.

Patients in this study will include certain individuals with sickle cell disease or Cooley's anemia (thalassemia), hemophiliacs who use blood products to control

(See BLOOD TESTS, Page 6)

DR. SCHLOM

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The AMC Cancer Research Center in Denver also presented an award to Dr. Schlom for "his innovative and distinguished work that has placed him in the forefront of research." At the March 23 presentation, Dr. Schlom delivered a paper on "Monoclonal Antibodies to Breast Tumor Associated Antigens."

Dr. Schlom came to the NCI Division of Cancer Cause and Prevention in 1973 to do research in viral oncology in the Breast Cancer Virus Segment of the Virus Cancer Program. In 1976 he became head of the Tumor Virus Detection Section, Laboratory of Viral Carcinogenesis, and in 1980 was made chief of the Experimental Oncology Section, Laboratory of Cellular and Molecular Biology. In 1982 he was named chief of the new Laboratory of Tumor Immunology and Biology in the Division of Cancer Biology and Diagnosis.

Dr. Schlom says that his recent appointment brings his research career full circle. He started as a molecular biologist-virologist, but moved into immunology when the hybridoma technology opened new horizons for that discipline. Now, as chief of the new Laboratory of Tumor Immunology and Biology, he is once more working in molecular biology, but this time in close conjunction with immunology.

The laboratories under Dr. Schlom's direction have clarified a number of molecular and immunologic aspects of viruses and cancers in animals and humans. Under his direction, members of his laboratory have characterized the nucleic acids and protein structure of type-B mouse mammary tumor viruses and the type-D retroviruses of primates. The group has also

demonstrated that both of these virus groups can be transmitted not only through the germ line, but also through nongenetic means such as air, milk, and the placenta.

Dr. Schlom, with Drs. David Colcher and Patricia Horan Hand, developed a series of radioimmunoassays that identify the specific molecular structure of the proteins in both mouse and primate virus groups. These assays revealed that a single virus group may consist of many more types of viruses than scientists had suspected at the time. Dr. Schlom and his colleague Dr. Robert Callahan also discovered three genetic regions of cloned human DNA that are similar to analogous regions in the mouse mammary tumor virus.

Under Dr. Schlom's leadership, scientists in the Laboratory of Tumor Immunology and Biology are developing groups of monoclonal antibodies that react with antigens in breast or colon cancers. In experiments using several monoclonal antibodies, the group discovered that, instead of containing a single cell type, most carcinomas have evolving cell populations that change their antigenic profiles. Understanding of this cellular heterogeneity is important if hybridoma technology is to be used in the diagnosis or treatment of breast and colon cancer.

After receiving his Ph.D. in molecular biology from Rutgers University in 1969, Dr. Schlom joined the faculty of the College of Physicians and Surgeons at Columbia University, where he remained until 1973.

Dr. Schlom is an adjunct professor of genetics at the George Washington University in Washington, DC. He has written more than 100 scientific publications and serves on seven scientific editorial boards. In addition to many other awards, Dr. Schlom earned the Director's Award of the National Institutes of Health in 1977. □

More AIDS References Added on NLM Search

A new bibliography on AIDS, with over 200 references from recent medical literature on Acquired Immune Deficiency Syndrome, is available without charge from the National Library of Medicine's reference section.

The new bibliography (LS83-5), updates and supplements NLM Literature Search No. 83-1. It was produced through NLM's computer based system MEDLARS; an addendum contains references drawn from other sources.

A list of the nine Literature Searches produced so far for 1983 appears below. A complete list of available titles appears in each issue of *Index Medicus* and *Abridged Index Medicus*.

When requesting Literature Searches, please include title and number, enclose a self-addressed gummed label, and mail to: Literature Search Program, Reference Section, National Library of Medicine, Bethesda, MD 20209.

- LS83-1 *Acquired Immune Deficiency Syndrome (AIDS)*. January 1980 through April 1983; 179 citations, including addendum.
- LS83-2 *Cochlear implants*. January 1980 through March 1983; 114 citations.
- LS83-3 *Kepone (Chlordecone) toxicology*. January 1977 through March 1983; 90 citations and addendum.

- LS83-4 *Genetic factors in alcoholism*. January 1977 through June 1983; 231 citations.
- LS83-5 *Acquired Immune Deficiency Syndrome (AIDS)*. Update and supplement. May 1983 through August 1983; 215 citations, including addendum.
- LS83-6 *Clinical application of biomaterials*. January 1982 through July 1983; 352 citations in English.
- LS83-7 *Nuclear magnetic resonance imaging*. January 1980 through August 1983; 191 citations.
- LS83-8 *Ranitidine*. January 1980 through July 1983; 249 citations.
- LS83-9 *Liver transplantation*. January 1977 through July 1983; 256 citations. □

SPECIMENS

(Continued from Page 1)

At the beginning of the study, each volunteer will be evaluated for possible risk factors for AIDS such as types of sexual practices and numbers of different sex partners. Approximately 14,000 specimens will be collected each year, including samples of blood (serum, plasma, and leukocytes), semen, feces, saliva, and urine. The individuals will be examined regularly for clinical and immunological abnormalities and for other signs of AIDS. □

Betty D. Kuster Dies; Former DCRT Employee

Betty D. Kuster, former DCRT Administrative Officer, died of cancer Aug. 16 at Suburban Hospital.

Mrs. Kuster was a Federal employee for over 25 years, and worked in DCRT for 12 of those years until her retirement in 1978. Her entire career was spent at NIH, beginning in 1953 as a clerk-typist in NIAID. She later became an administrative assistant and then a grants management assistant in that Institute.



Mrs. Kuster

In 1966 Mrs. Kuster came to DCRT, as an administrative assistant and was appointed Administrative Officer of the Division 5 years later.

She was born in Eastport, Maryland but made her home in Rockville. She is survived by her husband, William C. Kuster, and her son, Wayne.

Contributions in her memory will go to the American Cancer Society, and they may be sent to L. Lee Manuel, DCRT Executive Officer, Bldg. 12A, Rm. 3025.

BLOOD TESTS

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bleeding tendencies, and some trauma or surgical patients who may require many units of blood in a short period of time.

A blood serum and blood cell repository that can be used in future research efforts will also be set up.

Authorities emphasize that the number of AIDS cases associated with blood transfusion is extremely small. The actual incidence probably is not greater than one in a million transfused patients per year. □

The only thing to do with good advice is to pass it on. It is never of any use to oneself.—Oscar Wilde □

The way out of trouble is never as simple as the way in.—E.W. Howe □