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The NIH Record

Dramatic Progress on Understanding AIDS, But Vaccine or Cure Long Way Off—Gallo



Two Distinguished Scientists Put Their Heads Together

Dr. Albert B. Sabin (l), a pioneer in polio research and one of the first cancer researchers in this country, visits with Dr. Robert C. Gallo (r) at NCI's Laboratory of Tumor Cell Biology which Gallo heads.—Photo by Bill Branson/NIH

By Francis X. Mahaney Jr.

Although scientists have made dramatic progress in AIDS research, "we still have a long way to go to perfect a vaccine or cure," says Dr. Robert C. Gallo, chief of NCI's Laboratory of Tumor Cell Biology and one of the Nation's leading AIDS researchers.

"We still don't know at what point a person is infectious. We still do not know at what dosage it takes to be infected," Dr. Gallo said, speaking on AIDS before a crowded audience at the Stone House recently with Dr. Albert Sabin, renowned for his development of the oral polio vaccine.

The heterogeneity of the AIDS virus' envelope or protein cover (its ability to frequently change receptors on this outer coat makes it difficult to design antibodies which will invariably neutralize the virus) is a key to developing a vaccine, Dr. Gallo indicated and "it is imperative for us to know the nature of these things."

The 48-year-old scientist has been at the forefront of American medical research for more
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NHLBI Mounts Campaign To Cut Cholesterol, CHD

A new national effort to reduce the rate of coronary heart disease (CHD) and death from it by lowering blood cholesterol was officially launched by the National Heart, Lung, and Blood Institute on Nov. 15. NHLBI hosted the first meeting of the coordinating committee of the new National Cholesterol Education Program.

The committee has more than 20 representatives from major medical, public health, and voluntary health organizations such as the American Medical Association, the American Public Health Association, and the American Heart Association. Eight Federal agencies also have liaison representatives on the committee.

The new campaign will attempt to prevent CHD by lowering elevated blood cholesterol in the U.S. population. It will be patterned to a large degree after the National High Blood Pressure Education Program, also administered by NHLBI, which is frequently cited as a model for public health education and education of the health professions. That national blood pressure control effort is believed to be a major contributor to the nearly 50 percent decline in deaths from stroke that has taken place since the program began in 1972.

In an opening address, NHLBI Director, Dr. Claude Lenfant, said "... since the release of

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Dr. R. Kirschstein Gets Top Executive Award: Three Others Honored as Meritorious Executives



Dr. Kirschstein

Dr. Ruth L. Kirschstein, Director of the National Institute of General Medical Sciences, was recently honored with the Presidential Rank Award for Distinguished Executives.

Dr. Kirschstein also received the Executive Excellence Award for Distinguished Executive Service.

At the same time, three other NIH executives were presented the Presidential Meritorious Executive Rank Award. Two of them were Dr. Frank Neva, NIAID, and Norman Mansfield, OD. The third recipient, a scientist, asked that no publicity be given to his award.

President Reagan presented the Distinguished Executives Award, the highest honor that can be given to career civil servants, to Dr. Kirschstein and 31 others at a ceremony in the Old Executive Office Building. She was the only 1985 award recipient from the Department of Health and Human Services.

Since the award's establishment in 1979, 12 HHS executives have been so honored. Dr. Kirschstein is the first woman in HHS to receive this award.

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Dr. Martha Bryan Named Handicap Program Mgr.

Dr. Martha R. Bryan was recently appointed handicap program manager in the NIH's Division of Equal Opportunity.

Dr. Bryan previously served as director of handicapped student services with the University of Tennessee in Knoxville. During her 6 years in this position, she developed a comprehensive accommodations program for the disabled students and employees of the university.

Among her accomplishments were the development of an accessibility guide and tactile map of the campus, adaptive aids for sight impaired persons, large-scale awareness programs, interpreting services, a program for learning disabled persons, and an employment referral network.



Dr. Bryan

She received her doctor's degree from the University of Tennessee in educational psychology with collateral studies in special education and rehabilitation, administration, and research. She holds a master's degree in counseling and a bachelor's degree in psychology. She has published articles, on learning styles and disability issues.

Dr. Bryan is active in the Association of Handicapped Student Services Programs in Post-Secondary Education and the American Educational Research Association and holds memberships in other professional organizations.

Before 1980, she was director of two Special Student Services Programs for Disadvantaged Students funded by the U.S. Department of Education.

Inquiries regarding the NIH Handicap Program should be directed to Dr. Bryan on 496-2906. □

GALLO ON AIDS

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than a decade. He is best known for his work in the biology and biochemistry of viruses and tumor cell proliferation.

Dr. Gallo received several major awards last fall.

On Dec. 12, the New York Academy of Sciences honored him for his seminal work on the discovery of the T-cell growth factor (TCGF), which led to his isolation of HTLV-I, the first human retrovirus, and HTLV-III, believed to be the causative agent of acquired immune deficiency syndrome (AIDS).

"I can't think of another scientist more original, more creative, or bold in the type of research problems he will tackle," says his colleague, Dr. Max Essex of Harvard University.

Last October, Dr. Gallo received the distinguished Hubert H. Humphrey Cancer Research Award for his "outstanding contributions to cancer research," especially his pioneering discovery of T-cell growth factor, also called interleukin-2, a molecule that may play a role in the immune system's response to certain tumor cells. Interleukin-2 is a critical part of a new approach to curing cancers, now being tested at NCI.

The Hubert H. Humphrey Cancer Research Awards—named in memory of the late 38th Vice President of the United States—are presented each year by the Boston University School of Medicine. Mr. Humphrey, who was serving his fifth term in the U.S. Senate at the time of his death, died of cancer in January, 1978.

Dr. Gallo also received the "Rabbi Shai Shacknai Prize in Immunology and Cancer Research" by the Hebrew University in Jerusalem Dec. 16; Italy's "Premio Internazionale Tevere

Roma" on Sept. 22, 1985; the "Simon M. Shubitz Award" at the University of Chicago Cancer Research Foundation on May 7, 1985; The "Lila Gruber Honor Award for Cancer Research" by the American Academy of Dermatology on Dec. 3. He was honored by the Infectious Diseases Society of America on Oct. 3, 1985 for his contributions to AIDS research.

Lastly, the mayor of Waterbury, Conn. remembered the smalltown boy who made good by presenting the immunologist with a plaque from the city. Dr. Gallo was born in this west-central Connecticut manufacturing town where one longtime resident remembered him as "a very nice little boy," attending St. Peter and Paul Grammar School and Sacred Heart High School there.

Dr. Gallo has built the foundations of his research around the growth of human leukemic cells and the role of cellular and viral DNA polymerases. He developed tissue culture systems for growing human myeloid cell lines and demonstrated that these cells can be induced to differentiate into phenotypically normal mature granulocytes. This work culminated in Dr. Gallo's discovery of T-cell growth factor and the development of the first system for the routine longterm culturing of normal and neoplastic T-cells.

Dr. Gallo began working at the NCI in 1965 as a Clinical Associate in the Medicine Branch. In 1968, he became a Senior Investigator in the NCI Human Tumor Cell Biology Branch. Following that, he served three years as Head, Section on Cellular Control Mechanisms. He has been chief of the Laboratory of Tumor Cell Biology since 1972, and has authored more than 615 scientific articles.

He received his B.A. summa cum laude in 1959 from Providence College in Rhode Island and his M.D. from Jefferson Medical College in Philadelphia in 1963. □

Dr. Loré Ann McNicol Joins NIGMS as Administrator

Dr. Loré Ann McNicol, a molecular biologist, has joined the NIGMS Cellular and Molecular Basis of Disease Program as a program administrator. Dr. McNicol will administer grants pertaining to membrane structure and function.

Awarded a B.A. with honors in 1965 from the University of Montana in Missoula, she went on to the Boston University School of Medicine where she received a Ph.D. in medical sciences in 1968.

Subsequently, Dr. McNicol held post-doctoral positions at Tufts University in Boston; the Institute for Cancer Research in Fox Chase, Pa. and the University of Maryland in College Park. She has been on the faculties of

the University of Pennsylvania School of Medicine, the California Institute of Technology, and the University of Maryland.

Most recently, she was a guest worker in the NIAID Laboratory of Parasitic Diseases, where she worked on cloning cell-surface antigens of the sexual stages of *Plasmodium falciparum*—the organism responsible for the most virulent form of human malaria—in an effort to find vaccine candidates.

Dr. McNicol has written or collaborated on more than 25 research articles and textbook chapters and has been an ad hoc reviewer for a number of scientific journals. □