

Seven New Grants Awarded To Develop AIDS Screening Devices for High-Risk, Non-Symptomatic Carriers

HHS Secretary Margaret M. Heckler recently announced major new research grants aimed at developing blood tests or other screening procedures that could detect AIDS (Acquired Immune Deficiency Syndrome) in high-risk individuals who have not developed symptoms. Funding for the grants—awarded Apr. 1 through the National Heart, Lung, and Blood Institute—will total \$1.13 million for the first year.

The research grants will be awarded to the following institutions:

• **Stanford University Blood Bank, Palo Alto, Calif.**, Dr. Edgar G. Engleman. Using volunteers from various groups, including male homosexuals, blood donors, patients with AIDS and those with general lymph tissue pathology, the investigators will study a battery of tests to assess their value in predicting the occurrence of AIDS in high-risk individuals. (\$146,579)

• **Veterans Administration Medical Center in San Diego, Calif.**, Dr. Douglas D. Richman. The primary goal of this project is to determine whether individuals at risk for AIDS are infected with cytomegalovirus, Epstein-Barr virus or human T-cell leukemia virus. Procedures would be refined to detect unknown or new viral agents if evidence leads in that direction. (\$218,745)

• **AMC Cancer Research Center, Lakewood, Colo.**, Dr. Ernest Borek. The investigators will analyze urine of patients with AIDS, individuals at risk for AIDS and healthy control subjects to test the feasibility of using certain biochemical markers as possible

indicators for the carrier state of AIDS. (\$121,754)

• **University of Colorado, Denver**, Dr. Martin J. Blaser. Under the assumption that individuals infected with the AIDS agent will develop antibodies specific to the agent, the investigators will analyze blood serum to isolate and characterize the agent and provide the basis for a specific test for the carrier state. (\$52,338)

• **Uniformed Services University of the Health Sciences, Bethesda, Md.**, Dr. Olivia T. Preble. A specific form of human interferon present in elevated levels in AIDS patients and only rarely in normal individuals forms the basis of this investigation. The objective is to use serum samples from healthy individuals and from those at high risk of AIDS to develop a specific screening test suitable for use by blood banks. (\$179,786)

• **Irwin Memorial Blood Bank, San Francisco, Calif.**, Dr. Herbert A. Perkins. To assess the link between blood donor and recipient in the transmission of AIDS, the investigators will track donors of blood to persons who develop AIDS, recipients of blood from donors who subsequently develop the disease and a cohort of sexually active male homosexuals. Serum tests will be evaluated to uncover markers for AIDS. (\$236,062)

• **Southwest Foundation for Research and Education, San Antonio, Tex.**, Dr. Gordon R. Dreesman. Under the basic assumption that cytomegalovirus or human T-cell leukemia virus is involved in the transmission of AIDS, the investigators will assess

a number of unique laboratory procedures to uncover the agent of AIDS and to develop specific mouse or monoclonal antibodies to it. (\$174,410)

"These new awards form an important part of our continuing AIDS-related research initiative," Secretary Heckler said. "A specific, early test before the symptoms of this devastating syndrome appear, could offer new hope to AIDS victims by permitting early care. It could also enable blood collection agencies to screen blood donations that may transmit AIDS."

A small number of hemophiliacs and other recipients of blood and blood products have apparently contracted AIDS through blood from seemingly healthy donors who later developed AIDS.

Scientists suspect that AIDS is caused by a virus transmitted through sexual contact or, much less often, through blood or blood products. Homosexual and bisexual males with multiple partners and intravenous drug abusers account for more than 89 percent of the 3,775 reported AIDS cases, while recent Haitian entrants account for 4.1 percent and hemophiliacs less than 1 percent.

A year ago, the Public Health Service recommended that members of these high-risk groups refrain from donating blood. The risk of contracting AIDS from blood transfusions is very slight. New procedures for processing blood products have lessened the risk for hemophiliacs and others. There is no AIDS risk to blood donors. □

Dr. Elisabeth Bautz Freese Dies of Cancer

Dr. Elisabeth Bautz Freese, 55, a research biologist with the Developmental Biology Section of the Laboratory of Molecular Biology, National Institute of Neurological and Communicative Disorders and Stroke, died of cancer Mar. 5 at University Hospital in Baltimore, Md.

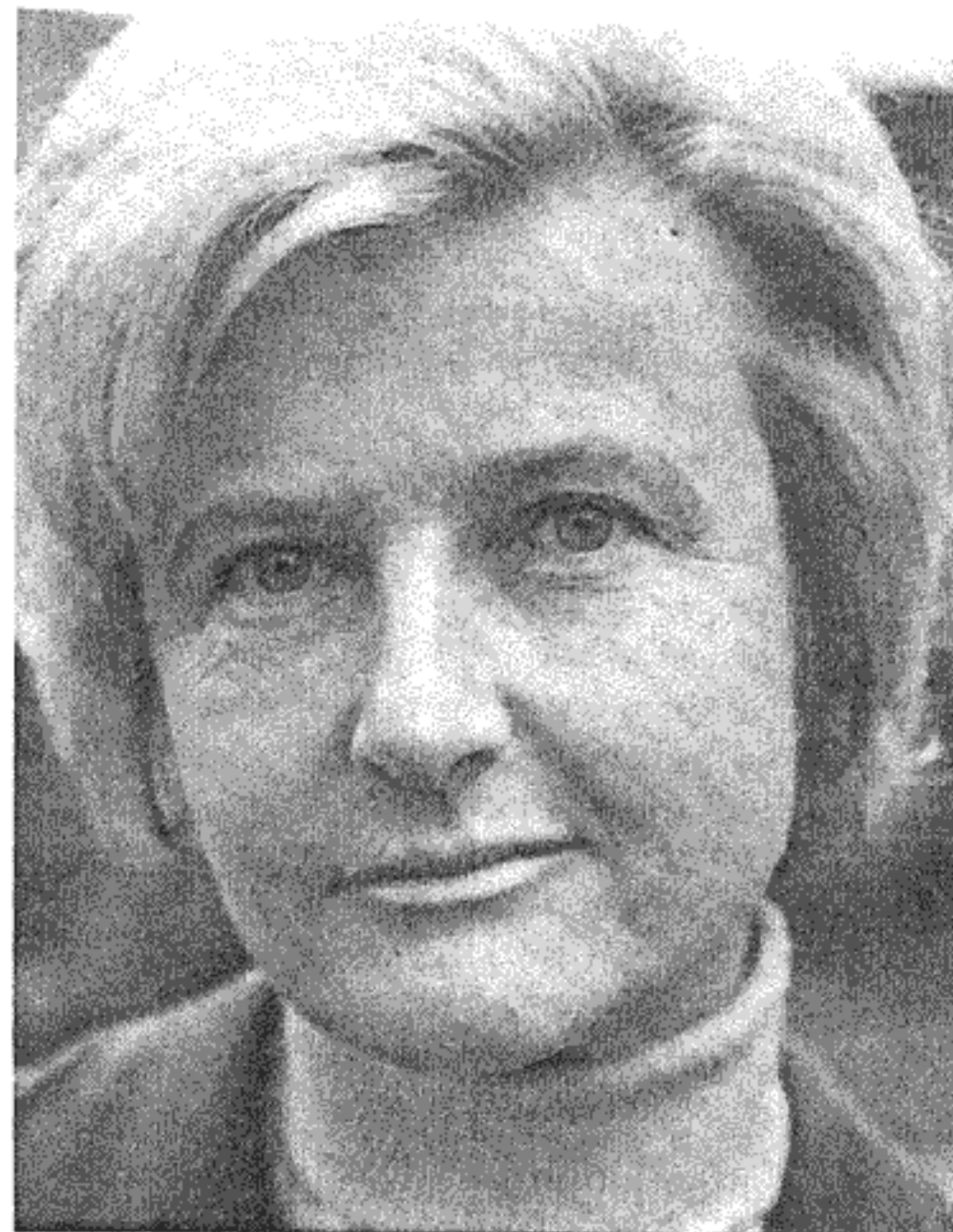
Dr. Freese was born at Lake Conzanz, Germany. She earned her Ph.D. in biology at the University of Freiburg and was the first woman scientist honored by a postdoctoral fellowship from the German Research Association. She did postdoctoral work with Dr. Max Delbrück at the California Institute of Technology and with Dr. James D. Watson at Harvard University.

Throughout her research career, Dr. Freese worked closely with her husband, Dr. Ernst Freese, first at the University of Wisconsin and for the last 22 years at NINCDS.

The two scientists were known for their work in the field of genetics. They specialized in the use of viruses and other materials to determine how various chemicals induce different types of DNA alterations which cause mutations or chromosomal breaks.

These studies encouraged Dr. Freese and her husband to predict 18 years ago that compounds with certain chemical groups cause cancer.

In recent years, Dr. Freese's research in-



Elisabeth Bautz Freese

terests shifted to another important goal: the understanding of cellular differentiation. She proved that the meiosis and subsequent spore production of eukaryotic yeast cells,

which contain true nuclei, are controlled by the same molecules that control spore production of prokaryotic bacilli, which do not contain true nuclei. These findings suggest that certain differentiation signals have been retained during evolution.

Dr. Richard L. Irwin, laboratory director of the NINCDS Intramural Research Program, praised his colleague's dedication to science.

"During all the years I knew her," he said, "Dr. Freese never lost that exquisite degree of enthusiasm that you usually find only in the very young scientist."

"That was a unique quality about her. No matter what difficulties she encountered performing her work or finding acceptance of her ideas, she always was excited about her research."

Dr. Freese was devoted to encouraging the excellence of her two children: Katherine is pursuing a Ph.D. degree in physics at the University of Chicago, and Andrew is pursuing an M.D. degree at Harvard University.

Besides her husband and children, Dr. Freese is survived by her mother, Luise Bautz, and her brother, Professor E. Bautz, a molecular geneticist at the University of Heidelberg.

Expressions of sympathy may be made in the form of contributions to the Foundation for Advanced Education in the Sciences, NIH, Bldg. 10, Rm. B1L101, Bethesda, Md. 20205.