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Dr. Schoolman Named NLM Acting Director

Dr. Harold M. Schoolman has been appointed Acting Director of the National Library of Medicine. The appointment, effective Oct. 1, was announced by Dr. James B. Wyngaarden, NIH Director.

Dr. Schoolman, the Library's deputy director for research and education, will serve as NLM Acting Director until a permanent appointment can be made. Dr. Martin M. Cummings, the former Director, retired Sept. 30.

Dr. Schoolman has been at the Library since 1971 when he was named special assistant to the director for medical program development and evaluation. He became NLM deputy director for research and education in 1977.



A recipient of B.S. and M.D. degrees from the University of Illinois, Dr. Schoolman held academic posts at the University of Illinois department of medicine from 1952 to 1967.

From 1967 until his NLM appointment, he was in charge of all training and education activities of the department of medicine and surgery, Veterans Administration, including physicians, paramedical, and administrative trainees.

He has authored or coauthored articles on a wide variety of topics, including leukemia, statistics in medical research, copyright issues, information transfer in medicine, and libraries of the future. □

New Miniature Catheter Developed by BEIB Conveys Therapy Directly to Brain Tumors

A new type of miniature catheter—developed by the Biomedical Engineering and Instrumentation Branch, Division of Research Services, makes possible highly localized chemotherapy to patients who have inoperable brain tumors. The new device also reduces side effects of such therapy.

Besides being very small and flexible, the "toposcopic catheter" advances by being turned inside out (everted). (See diagram.) This rolling action causes less irritation than the movement of conventional catheters, which rub against the blood vessel wall when advancing.

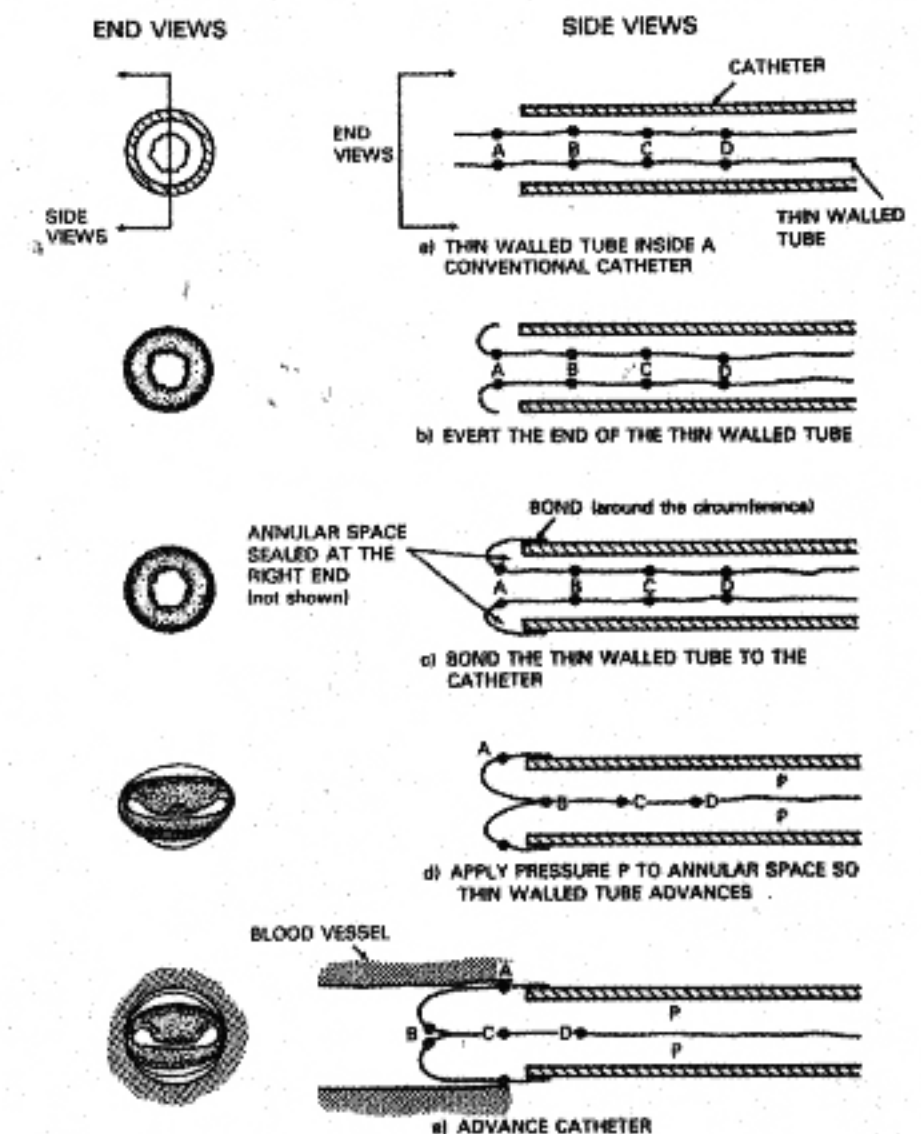
The new type catheter, under development in BEIB over the past 7 years, was recently used for the first time in a patient by Dr. John Doppman, chief of the Clinical Center's Diagnostic Radiology Branch, in collaboration with Dr. Edward Oldfield of the Surgical Neurology Branch, National Institute of Neurological and Communicative Disorders and Stroke.

Highly flexible, the newly devised catheter can pass through very small blood vessels that have many twists and turns. Conventional catheters are either too stiff to negotiate the turns or buckle like soft spaghetti when advanced from outside the body.

Made of very thin-walled polyurethane (about 1/20 inch in diameter), the new catheter is attached to the end of a conventional catheter.

In use, the conventional catheter is moved through a blood vessel until it reaches a point too narrow or winding to continue. Then the toposcopic catheter tube is pushed forward from the front end of the conventional catheter until the desired location is reached.

This everting action is powered by a pressurized X-ray contrast fluid so the catheter can be followed by a fluoroscope. At any point in the catheter's movement, the pres-



This schematic illustration of the operation of the toposcopic catheter shows how the thin-walled tube everts (turns itself inside out) to advance through narrow blood vessels with minimal irritation.

sure can be removed, opening a passage through which liquid can be delivered or aspirated.

A much larger version of the "everting" tube was developed in Israel during the early 1960s for intubation of the large intestines.

Dr. Seth Goldstein, chief of the BEIB mechanical engineering section, and Robert L. Jones, engineering technician, miniaturized that device and developed the preliminary version of the toposcopic catheter at the suggestion of Dr. Robert Bowman, chief of the NHLBI, Laboratory of Technical Development.

(See CATHETER, Page 9)

Simian AIDS Transmitted From Sick to Healthy Monkeys

An NIH research team and colleagues from the University of California have reported a successful experimental transmission of simian acquired immune deficiency syndrome known as SAIDS from sick monkeys to healthy monkeys.

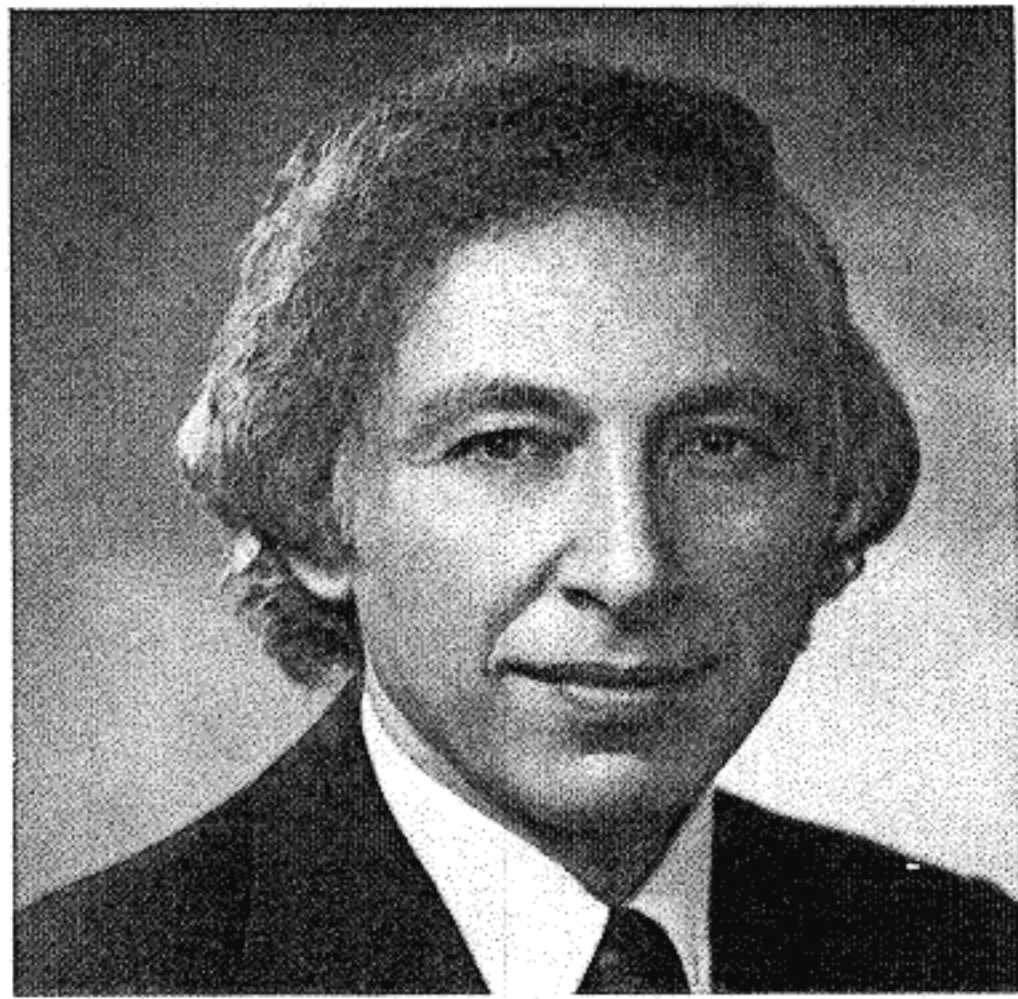
With this successful transmission, scientists can now study the specific tissues that may harbor the agent responsible for SAIDS, a disorder that resembles AIDS, acquired immune deficiency syndrome, in humans.

The cause of AIDS is unknown, although the investigators suspect that a virus or virus particle is responsible. Efforts to transmit the disease by injection of tissues from an AIDS patient to a laboratory animal have been unsuccessful.

Therefore, this transmission of SAIDS and the possible identification of the SAIDS agent could be important steps in helping scientists identify the agent responsible for AIDS.

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Dr. Robert C. Gallo Awarded French Griffuel Prize for Leukemia Research



Dr. Gallo

Dr. Robert C. Gallo, chief of the National Cancer Institute's Laboratory of Tumor Cell Biology, received the 1983 Griffuel Prize for cancer research on Oct. 12.

The prize is presented annually by the Association for Research on Cancer (ARC), a French voluntary cancer research organization.

Jacques Crozemarie, president of the ARC, Villejuif, France, presented the 1983 prize of 240,000 French francs (about \$30,000) to Dr. Gallo in the UNESCO building in Paris.

Dr. Gallo received the award for his contributions to the considerable progress recently achieved in the epidemiology of the human T-cell leukemia virus (HTLV) and acquired immune deficiency syndrome (AIDS).

Dr. Gallo and his coworkers have isolated and characterized in detail an RNA tumor virus, or retrovirus, from certain rare forms of human leukemia and lymphoma.

Scientists have known for some time that retroviruses can cause naturally occurring leukemias and lymphomas in a number of animals, but they could not isolate a similar human virus for a human cancer until 1979. The virus is called human T-cell leukemia-lymphoma virus, or HTLV.

A major advance that led to the characterization of this virus was the discovery in 1976, by Dr. Gallo and his coworkers, of a T-cell growth factor (TCGF) that made possible the laboratory culture of T-lymphocytes, or T-cells.

T-cells are white blood cells that are responsible for cell-mediated immunity and also influence antibody production. With TCGF, Dr. Gallo and his colleagues were able to grow enough T-cells for sufficiently long periods to permit detection of the virus.

Although their original work was done with patients in this country, Dr. Gallo and his colleagues have since learned that HTLV and its associated leukemias and lymphomas are more prevalent in southern Japan and the Caribbean area, particularly Jamaica.

Other areas of the world that appear to have a prevalence of HTLV-associated T-cell cancers are parts of Africa, South America, Alaska, and the Southeastern United States. These cancers of adult T-cells occur pre-

dominantly among blacks and Orientals.

In collaboration with Japanese, British and Jamaican researchers, the NCI scientists have also found antibody to HTLV in uninfected close relatives and in clinically healthy people not related to patients in areas where the T-cell cancers are more common.

The antibodies are found about three times more often in close relatives than in non-relatives in these endemic areas. In contrast, the scientists have not found antibodies to HTLV in people in nonendemic areas.

Not every person infected with HTLV develops cancer. It has been estimated that about 1 of every 2,000 infected persons develops the disease each year in Japan. Factors that may contribute to disease development are environment, age at first infection, repeated infections, route of infection, and unknown environmental and genetic factors.

How HTLV is transmitted is unknown, but current information suggests that the virus is only minimally infectious and may require prolonged, intimate contact for transmission.

The identification of HTLV, however, yields promise for the possibility of treating and preventing T-cell leukemias and lymphomas of humans. It is also possible that molecular probes from this first human leukemia virus will be useful in detecting other tumor viruses in certain other human cancers.

Dr. Gallo also was recognized recently for his research on HTLV and AIDS by the Rockefeller University, in New York City, where he presented the Philip Levine Lecture on Sept. 22, 1983. The title of the lecture was "HTLV, TCGF, Oncogenes and the Genesis of Some Human Leukemias, Lymphomas and T-cell Suppressive Disorders."

At this time it is not known what causes AIDS, but a virus similar to HTLV appears to be a likely candidate. Further studies are necessary to determine if there is a causal link between HTLV and AIDS.

Scientists believe that the virus causing HTLV-associated T-cell cancers, the virus potentially associated with AIDS, and perhaps other viruses as well may all be members of the same family of viruses. □

SAIDS

(Continued from Page 1)

If the SAIDS agent could be identified and eradicated, the health of animals in present and future primate colonies would be enhanced.

The transmission was accomplished at the National Institute of Neurological and Communicative Disorders and Stroke by a scientific team led by Dr. William London.

Tissue from diseased animals and pathological studies were provided by Dr. Murray Gardner of the University of California, Davis, and Dr. Roy Henrickson of the California Primate Research Center.

SAIDS has been observed in a group of 64 rhesus monkeys maintained at the California Primate Research Center. Like AIDS, the disease is characterized by enlarged lymph nodes, weight loss and infections.

The California Primate Research Center is supported by a grant from the NIH Division of Research Resources.

The research findings were reported in *Lancet* Oct. 15. □

New Pamphlet Examines Parkinson's Disease

Parkinson's disease, a disorder affecting an estimated 500,000 Americans, is discussed in a new NINCDS pamphlet, *Parkinson's Disease: Hope Through Research*.

The publication addresses the possible causes and treatments for Parkinson's disease, and summarizes research efforts under way to overcome the disease.

The motor problems (tremor, etc.) of Parkinson's patients are discussed, as are current drug treatments and physical therapies to help reduce these problems. The booklet also suggests ways in which patients' families can provide positive support.

Single copies of *Parkinson's Disease: Hope Through Research* may be obtained from the Office of Scientific and Health Reports, NINCDS, Bldg. 31, Rm. 8A-16, NIH 9000 Rockville Pike, Bethesda, MD 20205; Tel: (301) 496-5751. □



The National Institute of Child Health and Human Development recently hosted a delegation of behavioral researchers from the Institute of Psychology of the Chinese Academy of Sciences, People's Republic of China. Professor Jing Quicheng, deputy director of the Institute served as chairman of the delegation. The delegation was accompanied by Li Shubao from the Science and Technology Section of the Embassy of the People's Republic of China in Washington, D.C. The trip was arranged by the National Academy of Sciences' Committee on Scholarly Communication with the People's Republic of China. The People's Republic of China and the U.S. have been sharing scientific information and technology since the signing of an agreement in June 1979.