# The NIH Record

U.S. Department of Health and Human Services

March 15 1983 Vol XXXIV No. 6 National Institutes of Health

### Dr. Peter Howley Wins Award in Experimental Pathology

Dr. Peter Howley, chief of the viral oncology and molecular pathology section of the NCI Laboratory of Pathology, has been awarded the 1983 Warner-Lambert/Parke-Davis award for meritorious research in experimental pathology. The letter of award cites his contributions to the understanding of the simian virus 40, the human polyoma viruses BK and JC, and the papilloma-viruses.

The \$3,000 prize and bronze medal will be presented at the annual meeting of the American Association of Pathologists in Chicago, Apr. 11. The award is given to association members under 40 years of age. At the award ceremony, Dr. Howley will talk on the Molecular Biology of Papillomavirus-Induced Transformation, which will be published in the American Journal of Pathology.

Dr. Howley came to NIH in 1973 as a postdoctoral research associate in the NIAID Laboratory of Biology of Viruses. Two years later, he moved to the NCI Laboratory of Pathology where he became a section chief in 1979.

His recent research has focused on the papillomaviruses, a group of DNA viruses. Certain members of the group can produce cancers in animals and some investigators believe they may be associated with human cancers.

Dr. Howley and his coworkers were the (See DR. HOWLEY, Page 6)

## Science Reporting Forum Planned for STEP Meeting

The STEP committee plans a forum on Science Reporting for Wednesday, Mar. 30, in Wilson Hall, Shannon Bldg., from 2 to 4 p.m. Topics to be addressed include the role of the science reporter, how topics are selected for publication, and interaction of the press with working scientists.

Speakers include Marvin Garette and Beverly Orndorff, managing editor and science editor, respectively, of the *Richmond Times-Dispatch*, and Storm Whaley, NIH Associate Director for Communications.

The forum is open to all NIH employees. No advance registration or application is necessary.

For further information, call Arlene Bowles, 496-1493. □

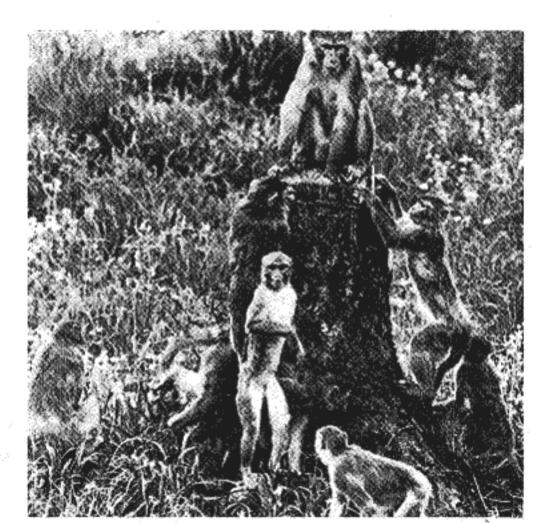
### AIDS-Like Outbreak in Nonhuman Primates Leads to Discussion of Possible Animal Model

Possibilities for developing an animal model to study a new and usually fatal human disease were discussed at NIH during a Workshop on Acquired Immunodeficiency Syndrome in Nonhuman Primates, Mar. 2. The all-day seminar was sponsored by the Division of Research Resources to review recent findings regarding acquired immunodeficiency disorders in nonhuman primates.

Dr. Betty Pickett, DRR Director, opened the conference by emphasizing the important role that animal models have played in developing therapies for human health problems. She noted that the ideal facilities for developing an appropriate animal model for AIDS are available in the national network of regional primate research centers established by NIH and supported by DRR.

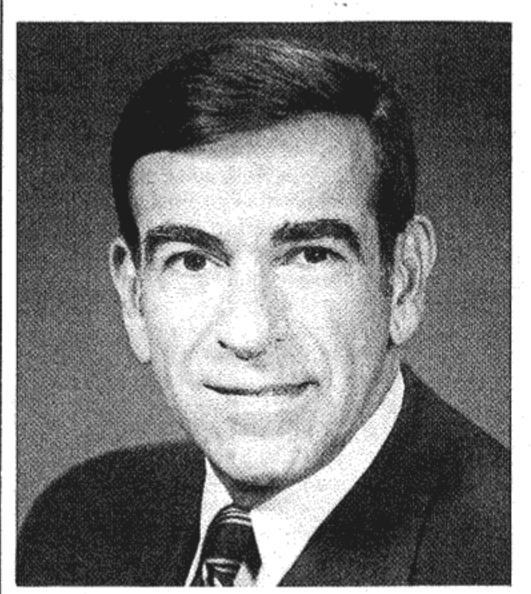
She noted the Division's concern about the threat from this condition to the welfare of animals in these colonies and to

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Immunodeficiency disorders have been found among nonhuman primates in DRR-supported animal research centers. Rhesus monkeys may provide an important animal model for studying acquired immunodeficiency syndrome in humans.

# Dr. Lawrence E. Shulman Appointed Division Director of NIADDK



Included among Dr. Shulman's research contributions is the first paper written on the prognosis of lupus (with Dr. Margaret Merrill) and the first substantive monograph on lupus (with Dr. A. McGhee Harvey et al.), while on the Johns Hopkins University junior faculty.

Dr. Lawrence E. Shulman has been named director of the NIADDK Division of Arthritis, Musculoskeletal and Skin Diseases. In this position, he oversees the division's programs of research grants, research training and career development, and contract-supported research, and also provides leadership for national Federal research efforts undertaken by other components of NIH and by other agencies.

#### Division Described

The Division of Arthritis, Musculoskeletal and Skin Diseases has the lead responsibility for the nationwide program of research in arthritis and related rheumatic diseases, including rheumatoid arthritis, osteoarthritis, gout, lupus, scleroderma, ankylosing spondylitis, and juvenile arthritis.

Also, bone diseases such as osteoporosis and Paget's disease; inherited connective tissue diseases such as osteogenesis imperfecta; joint replacements; and skin diseases such as psoriasis, epidermolysis bullosa, ichthyosis and vitiligo.

The arthritis, musculoskeletal and skin diseases "cluster" of programs at NIADDK

(See DR. SHULMAN, Page 7)

### AIDS-LIKE OUTBREAK IN NONHUMAN PRIMATES LEADS TO DISCUSSION

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members of an endangered species.

Dr. John L. Sever, a microbiologist with NINCDS, Dr. H. Clifford Lane of NIAID, Dr. William I. Gay of DRR, and Dr. Kenneth Sell of NIAID participated in the workshop, along with representatives of two regional primate research centers where acquired immunodeficiency disorders have been found. The workshop focused on the comparative medical aspects of the disorder called simian acquired immunodeficiency syndrome, or SAIDS, and human AIDS.

Dr. Donald Francis of the Centers for Disease Control discussed the epidemiological and biosafety aspects, particularly the probable transmissibility of AIDS and the potential risk to laboratory personnel.

Dr. Lane gave an overview of the history and pathology of human AIDS, which was first discovered in 1981. Originally seen in the male homosexual community—where it has now reached epidemic proportions—AIDS was later reported among Haitians, hemophiliacs, and intravenous drug users, though about 6 percent of the reported cases involve victims with none of these characteristics. White non-Hispanic males are the most frequent victims.

Clustering of the cases, particularly in New York and California, suggests the possibility of contagion. Because the epidemiology of the disorder is similar to that of hepatitis B, an infectious agent requiring blood-borne transmission is suspected.

Patients with acquired immunodeficiency syndrome develop multiple and unusual infections and neoplasms. Kaposi's sarcoma, a rare cancer affecting the skin and mucosal tissue, is seen in 20 percent of human victims, and nearly half come down with an uncommon protozoal pneumonia, caused by *Pneumocystic carinii*.

Numerous other infections—called "opportunistic" because they do not affect people whose immune systems are working properly—may also appear. While the individual diseases are often treatable, most victims eventually succumb to repeated infections since their natural defenses never recover.

Another syndrome with similar characteristics to those found in AIDS has also been described recently. Called lymphadenopathy, the disorder is characterized by swollen lymph glands, fatigue, severe and sudden weight loss and fever.

Some lymphadenopathy patients develop AIDS, leading to speculation that the condition is a precursor to AIDS; however it is not yet clear whether a connection exists since some lymphadenopathy patients recover and some AIDS victims never appear to have lymphadenopathy.

Approximately 65 percent of AIDS victims die within the first year, and some researchers feel that no one survives the disorder. No cause is known and no effective therapy is currently available.

Because transmission through blood is suspected, the disease is a major concern to those who must rely on blood or blood products. Furthermore, incidence of AIDS is growing rapidly. Since it was detected in 1981, the number of victims has doubled every 6 months.

With so little known about the syndrome, Dr. Lane pointed out, "It cannot be assumed that the disorder will remain restricted to a particular segment of society." Thus, the development of an effective animal model to study AIDS is critically important.

Drs. Norman L. Letvin, Ronald C. Desrosiers, and Norval W. King, Jr., all of the New England Regional Primate Research Center, reported on transmissible lymphomas occurring in rhesus and other macaque monkeys and an immune deficiency syndrome characterized by high incidence of unusual infections, primarily among Macaca cyclopis monkeys.

Cytomegalovirus was isolated from a number of the primates; other infections included protozoal parasites of the gastrointestinal tract, *Pneumocystic carinii*, and necrotizing gingivitis. Anemia and other blood abnormalities and a low ratio of T4 to T8 cells were seen in some of the monkeys.

According to Dr. Letvin, the similarity of these syndromes in macaque monkeys to human AIDS suggests that the primates may provide an important model for studying AIDS.

Dr. Roy V. Henrickson of the California Primate Research Center described four distinct outbreaks of simian immune deficiency diseases that have occurred since 1969. The first, occurring between 1969 and 1975, involved 42 cases of malignant lymphoma with concurrent infections in rhesus monkeys.

The present outbreak of an immune deficiency disorder began in August 1981 after nine apparently healthy females from a group of animals that survived an earlier episode of immune disorders were placed wth 55 additional rhesus monkeys. So far, 27 of the animals in this colony have died of immunodeficiency-related disorders.

Diarrhea, anemia, and swollen lymph glands were most commonly involved, and significant numbers of the affected monkeys showed spleen enlargement, fever, arthritis, and infection. Three animals developed a fibrosarcoma of the skin, a type of tumor not previously seen in the colony.

Drs. Donald H. Maul and Murray B.
Gardner of CPRC presented specific case studies and defined SAIDS as a condition presenting at least four of nine specific symptoms. Dr. David L. Madden of NINCDS discussed blood pathology of SAIDS and pointed out that significant hematological changes do not appear until the affected monkeys are close to death.

Although the cause of these outbreaks is not yet known, Dr. Henrickson and his colleagues feel that the disease mechanisms may be similar to those involved in the current epidemic of human AIDS.

current epidemic of human AIDS.
Noting that simian immunodeficiencyrelated diseases pose an increasing threat
both to primate colonies and to researchers
that depend on them, Dr. Sheldon Wolff of

Tufts University summarized the comparative medical aspects of human and simian AIDS. Although a number of differences exist, significant similarities are also present as has been true in two other immune disorders of animals which Dr. Wolff has used successfully for comparative studies.

Only female monkeys were affected at the California center while the disorder at the New England center showed no sexual predilection. (Human AIDS affects males in 94 percent of the cases). Primates in the New England center developed fatal necrotizing gingivitis; in California a nonfatal type of ulcerative gingivitis occurred in some monkeys.

Organisms associated with diarrhea were recovered from primates at both centers, but not from human AIDS victims. Blood cell studies have shown varying results, and the altered T4:T8 ratio clearly seen in human AIDS has been unpredictable or lacking in nonhuman primates.

Lymphomas and severe opportunistic infections are present in both primate groups and in human AIDS, as are swollen glands, diarrhea, wasting, and anemia. Noting that animal models need not mimic every aspect of a human condition to be valuable, Dr. Wolff concluded, "I believe that these monkeys will provide good models for the study of human AIDS."

### **Retirement Planning Program Offered**

The Recruitment and Employee Benefits Branch, DPM, will offer another Retirement Planning Program for NIH employees on Apr. 21 and 22.

A personnel bulletin will be distributed desk-to-desk providing more information.

## William Overman, Supply Operations Branch, Dies

The NIH community was saddened recently by the untimely death of William Overman, Sr., on Feb. 22.

Mr. Overman had been an employee of the National Institutes of Health for over 26 years. He began his career in the animal food and bedding section of the Supply Operations Branch and advanced to inventory management specialist, serving in that capacity for 11 years.

For the past 4 years, he had been the requirements officer for the Supply Operations Branch.

Mr. Overman was considered an exceptional employee, receiving both quality and cash awards in recognition of his accomplishments.

His concern for his fellow employees led him to serve on the Division of Administrative Services' affirmative action committee.

Mr. Overman volunteered as a coach for local American Legion basketball teams. He and his family also opened their home to foster children of Montgomery County.

He will be remembered by all who knew him as a caring individual who repeatedly put his best effort into all his activities.