STUDY SECTION TO SPONSOR M.I.T. CONFERENCE

A conference on microspectro-photometry of cells has been scheduled for September 28-29, at the Massachusetts Institute of Technology, Cambridge, Mass. Sponsored by the Morphology and Genetics Study Section, Division of Research Grants, the conference will give scientists an opportunity to exchange information on instrument design, construction, techniques, and interpretation of results.

Discussions will be held on the advantages and limitations of various cytochemical techniques using various types of apparatus -- ultraviolet, visible, and infrared. Other topics will include the properties of new focusing systems and the use of allied techniques such as X-ray absorption.

The conference will consider cooperative experiments by interested laboratories to provide data on the above problems. Another objective is to furnish information to foundations interested in supporting research in this field.

On the opening day of the conference, an informal dinner will be held at the MIT Graduate House.

NIH scientists who plan to attend the two-day conference are asked to notify Dr. Elsa Orent Keiles, Executive Secretary of the Morphology and Genetics Study Section, Ext. 494. Her office is in Bldg. T-6, Room 2035.

PHS RESEARCH COUNCIL

The Research Planning Council, PHS, has completed a compilation and analysis of research projects and studies throughout the Public Health Service. Single copies of the 63-page booklet may be obtained from supervisors.

ON A CLEAR DAY

This is the view one may enjoy looking east from the highest point on the NIH reservation -- the top of the Clinical Center. Bldg. 1 is in foreground, Naval Medical Center in the distance.

GRANTEES TO DISCUSS WORK AT NIH MEETING

A symposium on artificial heart-lung mechanisms will be held in Wilson Hall, September 7 at 10:30 a.m., with scientists from seven research organizations in various parts of the country scheduled to present papers.

The conference, sponsored by the Surgery Study Section, DRG, is open to the professional staff of NIH. Invitations have been sent to the surgery departments of local medical schools and to the medical divisions of the armed services.

All of the speakers are conducting research supported by PHS grants. Serving as chairman for the meeting is Dr. Frederick A. Coller of the University of Michigan School of Medicine.

Programs or additional information may be obtained from Dr. J. Marshall Ellis, Executive Secretary of the Surgery Study Section, Ext. 2098.

NCI STUDIES SHOW VIRAL AGENT IN LEUKEMIC CELLS

Transplantable lymphoid leukemic cells in a selected strain of mice have been shown to carry a self-reproducing, nonbacterial, virus-like agent.

This finding is based on experiments conducted by Dr. Lloyd W. Law of NCI's Biology Section and Dr. Thelma B. Dunn, NCI, pathologist. A report on their work appears in the current issue of the Journal of the National Cancer Institute.

A nonfatal illness marked by loss of weight, inactivity, ruffling of fur, and labored breathing by the seventh day was produced by the virus in the mice in the early transfer generations. Autopsy showed severe damage to all lymphatic organs. When the leukemia was transplanted, the leukemic cells did not proliferate as rapidly as in an uninfected leukemic line.

The scientists report that the virus has been separated from leukemic cells by filtration, and has been maintained by serial transfer of cell-free filtrates in mice, inducing regularly the typical signs of acute illness.

The recovered animals have resisted attempts at reinfection. Leukemic cells apparently were freed of the virus after the infected subline was passed through successive hosts that recovered from the illness.

It was pointed out that other researchers in this field have suggested that viral agents may act to suppress leukemia. To date, however, most such viruses are impractical for clinical use.
Tropical Disease Carriers

No. 55 of a Series

Like other forms of insect life, mosquitoes come in astonishing variety. Some 2,000 kinds exist throughout the world. About 250 of these are disease carriers.

The control of these carriers is a public health problem of overriding importance. Malaria is a striking illustration. Transmitted by the Anopheles mosquito, it probably affects more people than any disease known to man. The economy of many tropical nations advances or stagnates depending on what progress is made against this disease.

Since only 250 of the 2,000 varieties of mosquitoes transmit disease, how does science separate the sheep from the goats? The answer is by dissection. This is the only sure way that some carriers can be identified.

By taking apart a mosquito, an entomologist can study its anatomy in detail and come up with an identification of species. Until this is accomplished, control measures represent misdirected effort.

In NMI's Laboratory of Tropical Diseases, this painstaking task of "zeroing in" on a potential disease transmitter is carried out by Mr. William H. W. Komp, a veteran of 33 years with the Public Health Service.

The job is done by placing the mosquito under a high-powered microscope, then manipulating a scalpel fashioned from a ground-down needle whose point is a third of the thickness of a human hair -- too fine to be visible to the naked eye. This needle is mounted on the end of a slender stick immobilized in a soft, clay-like substance. With this instrument the digestive tract can be removed, muscle and nerve tissue sliced, and other organs dissected for minute study.

Findings are recorded in series of anatomical drawings -- an eye-punishing job requiring infinite patience and precision -- for use on lantern slides or for illustrations in technical publications. One of Mr. Komp's drawings of a yellow fever mosquito, made in the 1920's for one of his bulletins, was used by the Republic of Panama for a commemorative stamp two years ago.

The stamp has philatelic interest for the NIH scientist because the scientific name of the mosquito is misspelled.

In the course of a third of a century spent in extending the range of knowledge of tropical disease carriers, Mr. Komp has described almost 50 new species of mosquitoes, including 2 anophelines. He has served as a consultant on missions in every Latin-American country except Argentina, Chile, and Uruguay -- the three that have no malaria problem. His last surveys in Brazil and Bolivia in 1946 were carried out for the State Department's Institute of Inter-American Affairs.

Here and There

Foundation Trustee

Dr. Harry Eagle, Chief of the Section on Experimental Therapeutics, NMI, has been named one of three trustees of the Foundation of Microbiology, recently established at Rutgers University.

Clinical Center

Dr. John A. Trautman has just returned from the convention of the American Society of Hospital Pharmacists in Buffalo, where he presented a paper on the proposed pharmaceutical service of the Clinical Center.

Trips and Talks

The American Physiological Society meets September 5-8 in Salt Lake City. Among those attending from NIH are Drs. Seymour S. Kety, Wade H. Marshall, and Karl Frank, NIMH; and James H. Baxter, NIH.

Three NCI scientists are attending the August 30-September 3 sessions of the Society for the Study of Development and Growth, in Northampton, Mass. They are Drs. Clifford Grobstein, Walter Heston, and Harold W. Chalkley.

Eleven NCI staff members were scheduled to attend the Gordon Research Conference on Cancer at New London, N. H., August 26-31, and the World Chemical Conclave in New York City, September 3-15.

Four NIMH staff members will attend the American Sociological Association meeting in Chicago, September 5-7. They are Drs. John A. Clausen, Richard H. Williams, Robert T. Hewitt, and Charles N. Elliott.

Attending the Second International Gerontological Congress in St. Louis, September 9-14, will be Dr. Paul H. Stevenson, NIMH; and Drs. J. H. Miller and J. E. Birren of NHI, who will present papers. NCI will be represented by Drs. W. C. Hueper, H. F. Dorn, R. R. Spencer, and Thelma B. Dunn. The latter two will present papers.

Eleven NIH representatives are attending the August 31-September 5 sessions of the American Psychological Association in Chicago.

NIH Record published by Scientific Reports Branch, National Institutes of Health -- Oliver 1400, Ext. 688.
STUDY SECTION MEETINGS

The following Study Section meetings are listed for the convenience of NIH people who wish to arrange visits with members while they are here. Unless otherwise indicated, the meetings will be held at NIH.


EMPLOYEE HONORED

Dr. Sebrell fastens 40-year service pin on lapel of Vivian R. Loving, NIAMD technician who recently retired at 63. Presentation was made at informal reception in Wilson Hall.

DR. SEBRELL ATTENDS ALASKA CONFERENCE

Dr. W. H. Sebrell, Jr., Director of NIH, is now in Alaska attending the meetings of the Second Alaskan Science Conference, sponsored by the Alaska Division of the American Association for the Advancement of Science. While there, he plans to inspect facilities of the Arctic Health Research Institute and to discuss its research program and possible integration with the work of NIH.

En route, Dr. Sebrell will review the program and inspect the facilities of NIM's Rocky Mountain Laboratory at Hamilton, Montana. The Laboratory, whose director is Dr. Carl L. Larson, is completing a building expansion and improvement program undertaken in the past year.

The NIH Director also plans to visit two NCI facilities. These are the Seattle cancer control laboratory under Dr. Stuart Lippincott and Dr. Edward C. Meeks, and the cooperative cancer research project at the University of California under Dr. Michael Shimkin.

Dr. Sebrell expects to return to NIH in mid-September.

RULES COVER USE OF LAB ANIMALS AT NIH

Definite, explicit rules govern the use of animals for experimental purposes at NIH. Not all employees -- particularly those outside the laboratories -- are aware of the regulations, reprinted here for the information of staff members throughout the reservation.

1. Animals shall be purchased from regular animal dealers only and not from individuals. Stray dogs on the reservation shall be called to the attention of the guard force immediately and turned over to the Montgomery County Authorities.

2. Animals in the laboratory shall receive every consideration for their bodily comfort; they shall be kindly treated, properly fed, and their surroundings kept in the best possible sanitary condition. Animals on long-term experiments shall be maintained under veterinary supervision.

3. No operations on animals shall be made except with the sanction of the Director of the Institute concerned, who holds himself responsible for the importance of the problems studied and for the propriety of the procedures used in the solution of these problems.

4. In an operation likely to cause greater discomfort than that attending anesthetization, the animal shall first be rendered incapable of perceiving pain and shall be maintained in that condition until the operation is ended. Exceptions will be made only by the Director of the Institute concerned and then only when anesthesia would defeat the object of the experiment. In such cases anesthetic shall be used so far as possible and may be discontinued only so long as it is absolutely essential for the necessary observations.

At the conclusion of the experiment the animal shall be killed painlessly. Exception will be made only when continuance of the animal's life is necessary to determine the result of the experiment. In that case, the same aseptic precautions shall be observed during the operation and so far as possible the same care shall be taken to minimize discomforts during the convalescence as in a hospital for human beings.

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Origin of Medical Terms

Cell - This term was first used by Robert Hook, a botanist, to designate the minute cavities he observed in the structure of cork. He used the name because of the resemblance of the cork structure to the cells or cubicles used by monks in monasteries.
Among the medical facilities operated by PHS is the Federal leprosarium at Carville, La., the only hospital of its kind in the continental United States.

This hospital for the treatment of leprosy was taken over from the State of Louisiana in 1921, and rebuilt and modernized a decade ago. It is a self-contained community occupying 350 acres. It operates its own power plant and heating system, two laundries and a large dairy, a filtration plant, and fire department.

For the 350 to 400 patients at Carville, sulfone treatments developed in the past ten years have proved more effective than the older drug, chaulmoogra oil. There is still no specific cure for leprosy, although it can be arrested. Last year PHS scientists reported some progress with promacetic, a sulfone closely related to promin, a sulfone closely related to promin and diazone. Of 21 patients with clinically active lesions, 20 showed objective improvement.

Here at NIAMD, Dr. Yoa-Teh Chang, a Fellow of the American Leprosy Foundation, is presently testing the sulfones against rat leprosy, a disease which differs somewhat from human leprosy, the causative organism of which has never been successfully cultivated. Up until 1942, NIH operated a leprosy investigation station in Hawaii, although it conducts no research on the disease at present. In the United States and other nontropical nations, leprosy is uncommon today.

Few diseases are surrounded by more misinformation and superstition than leprosy, which patients at Carville prefer to call Hansen's disease (after the Norwegian scientist who first discovered the causative agent) because of the stigma attached to the older name. The disease is only feebly communicable. In 56 years at Carville, no nurse, attendant or other employee has ever contracted the disease from a patient.

Among men the leprosy incidence is twice as high as among women. Transmission is commonest within families, with children the most vulnerable.

Like a good many others, Ken Painter had no fixed ideas about what he wanted to do five years ago when he walked out of an army separation center with a "ruptured duck" on his blouse and discharge papers in his pocket. He set his sights on NIH largely because of its proximity to his home in nearby Maryland and the fact that some of his acquaintances worked here.

Six weeks after he shed his uniform, he was behind a desk in T-6 in the Personnel office. He landed his present job as administrative clerk at NMI two and a half years ago, after short periods with the Fiscal Section and Purchase and Supply Branch.

As understudy to Administrative Assistant George Van Staden, Ken has tried his hand at most of the tasks that come under the nebulous heading of administration. This is a function pretty much taken for granted when things are moving smoothly, but, like most supporting services, gets the fish eye when delays and normal difficulties develop.

Determining scientists' space, equipment, and communication needs is a recurring problem in all Institutes. An important part of Ken's job is assisting in surveying these needs and plotting the answers. He worked on the intercom system installed in the past year in Bldg. 7, and is assisting with the space and equipment problems involved in planning NMI's laboratory units in the Clinical Center.

Born and schooled in Poolesville, Maryland and the fact that some of his acquaintances worked here.

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LIBRARY GETS NEW MICROCARD READER

A late model microcard reader -- one of the three principal methods for microphotographic publication of scientific literature -- is now ready for use in the NIH Library.

The microcard system has been chosen as a republication medium for a number of expensive scientific works and journal sets which are virtually unobtainable on the market, Librarian Scott Adams said. It supplements the library's conventional 35mm. microfilm reader.

The Library has the Journal of Abnormal and Social Psychology (1906-1918) on microcards, and is currently receiving research reports in the biological sciences on microcards from the Naval Research Section of the Library of Congress.

Readex microprint, a system which the Library here does not have, has excellent possibilities, Mr. Adams said, but so far publication has been concentrated in the humanities.

He pointed out that the development of other techniques, such as sheet microfilm, further complicates the choice facing any library considering substituting microreproduction for back files of journals.

Martin aircraft company in Baltimore following high school graduation in 1941. Three years later he found himself in the infantry, and was shipped overseas in December 1944, landing in France just in time to miss the Battle of the Bulge. He served as a machine gunner in a rifle company of the 45th Division, which was in on the capture of Munich and Nuremberg. The latter was the worst bombed city he encountered in Europe.

When the war ended with the surrender of Japan, Ken was at the port of Le Havre, awaiting return to the States and reshipment to the Far East. Instead, he was sent to Texas to sweat out his remaining months of service.

Ken was married just before going overseas. His two children are now five and two -- a boy and a girl. Home is nearby Gaithersburg.