**Fleming Names Two NHI Officials To DHEW Posts**

Two of the top men in NHI, Dr. James Watt, Director, and Robert H. Grant, Executive Officer, have been appointed by DHEW Secretary Arthur S. Flemming to positions in DHEW.

Dr. Watt will fill the newly created post of Special Assistant to the Secretary for Aging. In this capacity he will assist the Secretary and the Under Secretary, and will be directly responsible for the conduct of the 1961 White House Conference on Aging and for general direction of the Department's Special Staff on Aging.

Mr. Grant has been made Director of the DHEW Special Staff on Aging and Staff Director of the 1961 White House Conference on Aging.

**NIH Observes Christmas Season**

The annual NIH Christmas party on Wednesday, December 23, will feature the NIH Chorus presentation of "The Pool of Bethesda," an anthem written especially for NIH.

Incorporating Bible verses 2, 3, and 4 from the 5th chapter of the Book of St. John, the anthem was composed by Dr. George Thaddeus Jones, associate professor of music at the Catholic University of America. These verses, which describe the healing powers of the biblical Pool of Bethesda, are also beautifully displayed in an illuminated scroll executed by Enid Perkins, a Washington, D. C. artist. The scroll is on view in the CC lobby.

The Christmas party, to which all NIH employees are invited, will take place from 11:30 a.m. to 12:30 p.m. in the CC auditorium. The chorus will lead in the singing of Christmas carols, and Dr. Shannon will extend Christmas greetings. The new anthem will be sung at noon.

"The Pool of Bethesda" was given its initial performance on December 19, when the NIH Chorus entertained patients in the 14th floor assembly hall. The anthem was sung again by the chorus on December 21 in an evening choral presentation, December 22, 1959.

**FINAL UGF REPORT SHOWS NIH EXCEEDS GOAL BY $1,491**

Final reports on the UGF campaign revealed that DHEW, NIH, and 10 of the 13 components of NIH reached or exceeded 100 percent of their goals.

DHEW as a whole raised more than $165,000, while NIH contributed $1,491 more than its $60,469 quota.

DHEW Secretary Arthur S. Flemming sent his congratulations to all Department employees, and added, "Now that we have proved to ourselves and others that we can reach our goal, let us regard this as the foundation stone of a tradition that will mean we can and will meet our goal each year hereafter."

A plaque was presented to NIH at the UGF luncheon on November 22. Other plaques were given by Dr. John D. Porterfield, PHS Deputy Surgeon General, to the following representatives of NIH units that reached their goals: Harold W. Curran, DRG; Anne Udoff, DGMS; George Brust, DBS; Dr. Robert Farrier, CC; Robert H. Grant, NIH; James E. Moynihan, NIAID; Clair E. Lacey, NIAID; Jeni Arliss, NINDB; Charles E. Mills, NIMH; and John E. Fitzgerald, NIDR.

With the help of Santa Claus, Gray Ladies Mae Purcell (left) and Betty Smith select and wrap toys to be given to small patients at Christmas parties this week. Impersonating Santa here is Gary Schrag, a normal control patient.
the Record

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CHRISTMAS

(Continued from Page 1)

For a Fire-Free Xmas

Read 'Em & Heed 'Em!

For a Christmas free from the tragedy of fires, NHL's Fire Marshal, Kenneth W. Getttings, offers the following suggestions:

1. Buy a fresh Christmas tree.
2. Test to see that needles do not fall.
3. Make sure that resin is oozing from the stump.
4. Keep the tree moist.
5. Saw off the bottom of the trunk at an angle.
6. Keep the tree standing in water or wet sand.
8. Eliminate hazards.
10. Use only UL (Underwriter's Laboratory) equipment.
11. Keep tree away from stairs, exits, fireplace, or other sources of heat, flame, or draft.
12. Turn tree lights off when the room is not occupied.
13. Use flameproof decorations.

198 Grants Approved

At the November meeting of the National Advisory Health Council, 198 applications for research grants in the basic biomedical sciences and environmental health were approved.

Three hundred and forty-five requests were considered. Of the 198 approved, 135 were new applications, 11 were for continuation support, and 24 were supplements to existing projects.

USDA Courses Planned

Registration for the NIH-Division of Agriculture Graduate School will be held February 8-12 in the Clinical Center, Room 2-B-50, between 11:30 a.m. and 4:30 p.m.

A registrar will be available for consultation on January 25-26, and February 1-5, between 2-4 p.m.

Catalogs may be obtained now from Carol Long in Room 2-B-55, CC (ext. 2427).

Grants Data Restated

Due to an error in the last issue of the RECORD, a misleading impression was given of some research grants information. The correct version follows:

In Fiscal year 1959 NIH research grants were made to 874 institutions in the U. S. and foreign countries. Four hundred and twenty-six of these institutions had only active NIH grants.
Confirm Suitability of Milk

As Maintenance Medium

The development of a serum-free medium containing skim milk (Baron and Low, Science, 1968) which effectively maintains a wide variety of cell cultures led Division of Biologics Standards scientists to a study of viral sensitivity of various cell cultures in this medium.

Comparative titrations of 22 different virus strains, performed by Dr. Samuel Baron and co-workers, showed that the infectivity titers of ECHO, Coxsackie, poliomyelitis, influenza, herpes, measles, and vaccinia virus in the presence of skim milk medium were equal to or greater than those obtained when established maintenance medium was used.

Strains of adenovirus maintained in skim milk showed a lower infectivity for the cells than in established maintenance media. Experiments to determine whether the skim milk acts directly to reverse adenovirus multiplication or whether it lacks the cell-mediated enhancing factor of other media indicated that its inhibitory action was probably an effect on the tissue culture cells rather than an antiviral effect. Similar cell-mediated effects have been observed by other investigators.

Thus, the overall results of the study confirm the suitability of skim milk as a maintenance medium. Full details of the study by Alice Gochnour and Dr. Samuel Baron appeared in a recent issue of Experimental Biology and Medicine.

Polyoma Particles Seen

In Nucleus of Cells

In Tissue Culture

Scientists of National Cancer Institute's Laboratory of Pathology have reported in a recent issue of the Journal of the National Cancer Institute on their electron microscope studies of the polyoma virus grown in cell cultures of a mouse lymphoma. Spherical particles were found in the nucleus, cytoplasm, and on the surface of the cell in infected cultures.

Newborn mice inoculated with these cultures developed the same neurological and behavioral disturbances as seen in normal mice inoculated with polyoma virus grown in cell cultures of a mouse lymphoma. The average diameter of the polyoma particles was 27 to 35 nm. This size is comparable with that obtained in studies of the polyoma virus isolated from a different source, the Dr. Herbert Kahler, Laboratory of Physiologv, and his associates (JNCI, March 1959).

Steroid Hormones Block

Key Process in Cell

The role of the steroid hormones in the regulation of cell metabolism, although of great biological importance, is still not well understood. Basic research studies by the National Institutes of Arthritis and Metabolic Diseases have now shown that the steroids are potent inhibitors of one of the key metabolic reactions taking place within the cell—the oxidation of DPNH or diphosphopyridine nucleotide.

This finding has been reported in the Proceedings of the National Academy of Sciences by Dr. K. Lemone, Yielding, Arthritis and Rheumatism Branch, and Dr. Gordon M. Tomkins, Laboratory of Biochemistry and Metabolism.

DPNH is involved at a critical point in cell metabolism. Its oxidation to DPN, it is a co-factor required by many enzymes for the oxidation of food within the cell. During the oxidation, DPN is reduced to DPNH, and is then normally re-oxidized to DPN, so that it may again function as a co-factor.

Another Enzyme System

This subsequent oxidation of DPNH to DPN, which is accom­plished by another enzyme system in the cell, is the reaction the NIAMD scientists discovered to be inhibited by the steroid hormones.

The steroids that were found to inhibit markedly DPNH oxidation include cortisone, dihydrocorticosterone, cortocistone, deoxycorticosterone, testosterone, dihydrotestosterone, progesterone, estradiol and diethylstilbestrol. Several other steroids were tested, but had no effect on DPNH oxidation (tetrahydrocortisone, cholesterol, ergosterol, digitoxin and digoxin).

The active steroids were apparently catalytic, since small amounts inhibited the oxidation of much larger amounts of DPNH. Such a catalytic nature is clearly desirable in substances which are biologically active in low concentrations.

The biological significance of the finding of the NIAMD investigators has yet to be fully evaluated. "From a physiological standpoint, Drs. Yielding and Tomkins reported, "it is somewhat disturbing that all the organ tissues tested (muscle, liver, kidney, heart, etc.) seemed to be equally responsive chemically to such hormones as diethylstilbestrol or progesterone. It is, therefore, difficult to explain the varying tissue-specific responses of these organs to different steroids. It may be, however, that permeability or other factors impose a greater specificity when intact cells are exposed to the hormones."
BEGINNINGS OF FEDERAL ROLE IN MEDICAL RESEARCH TRACED

Excerpt from an address by Dr. James A. Shannon at the meeting of the Section on Historical and Cultural Medicine at the New York Academy of Medicine, November 18, 1959.

It is in the post-Civil War scene that the beginnings of a broad national health and medical research role for the Federal Government occurred. There was growing interest in public health in the States and among physicians and public officials. The first modern State Board of Health was set up in Massachusetts in 1872. The American Public Health Association was organized in 1872.

In 1879 a bill passed the Congress, creating a National Board of Health. I wish to dwell on the establishment of this National Board of Health for a moment because the activities which it undertook constitute the first organized, comprehensive national medical research efforts of the Federal Government.

This Board was set up to deal with a practical public health problem. In 1878 there had been a severe yellow fever epidemic, and it became clear that existing means for dealing with communicable diseases of this nature were inadequate. The Board was composed of seven members appointed by the President. It included representatives of the Army, Navy-Marine Hospital Service and the Justice Department. Significantly, one of its functions was to "obtain information on all matters of public health." The original bill also provided authority—deleted before enactment—for grants-in-aid to State Boards of Health.

The record of this Board is remarkable. Among the able men appointed to it was John Shaw Billings. Billings, an Army Medical Officer, was a distinguished intellectual and administrator—a rare combination. He had carried out the study which resulted in the reorganization of the Marine Hospital Service in 1870 and was to figure prominently in the national medical scene for the remainder of the century. Billings became Vice-Chairman of this National Board and its dominant and guiding member.

The Board initiated a research program, largely under the design and direction of Billings, which included the following activities:

1. The dispatch of a yellow fever investigation commission to Cuba.

2. The revision of a standard nomenclature of disease.

3. The development of a vital statistics program in cooperation with the Tenth Census of 1880.

4. The conduct of field sanitary surveys.

Finally, the Board provided financial aid to scientists in universities through grants for the conduct of research, a function which was of great interest in public health in the States and among physicians and public officials. The first modern State Board of Health was set up in Massachusetts in 1872. The American Public Health Association was organized in 1872.

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4. The conduct of field sanitary surveys.

Herpes Lesions in Oral Mucosal Tissue

Dr. I. I. Ship, NIDR, examines oral tissue with direct view microscope.

NIDR, National Institute of Arthritis and Metabolic Diseases, and Division of Biologies Standards reported on findings differentiating the above-mentioned lesions. Viral studies were outlined by Drs. S. Baron, DBS, J. P. Utz of National Institute of Allergy and Infectious Diseases, and I. I. Ship of NIDR, in which all attempts to isolate the herpes simplex or other virus from aphthous stomatitis lesions were unsuccessful.

Further differentiation between the viral and nonviral lesions was demonstrated by Dr. H. R. Stanley, Jr., of the NIDR Clinical Investigations Branch in a histopathologic study which showed that aphthous stomatitis does not exhibit the clearly discernible vesicular stage characteristic of the herpes lesions. In addition, the aphthous stomatitis lesions extend more deeply into the tissues and often persist for longer periods.

Adding further to our knowledge of the pathogenesis and etiology of the herpetic and nonherpetic diseases has been an epidemiological study of a large group of college students in the Philadelphia area. Data from these investigations will complement the earlier clinical-pathological studies.

Family Feels Impact Of Mental Illness

An aspect of the impact of mental illness upon the family is the effect upon the network of relationships and responsibilities entailed in family living. In a preliminary report of research conducted with families from which either husband or wife was hospitalized for schizophrenia, Dr. John A. Clauzen, Chief of the National Institute of Mental Health, Social and Environmental Studies, reports that these families frequently undergo a progression of disruptions and interpersonal conflict well in advance of the patient's hospitalization.

For females, the marital role itself was most often the first to show a deficit, disruption coming through accusations of infidelity, nagging, or a marital bed, or on a substantial measure of psychological withdrawal. The wife's duties as housekeeper were next most frequently impaired; housecleaning, cooking, doing the laundry became irregular or didn't get done. Only in one instance did the care of the children seem to be markedly impaired in the early stages.

By three months prior to hospitalization, half of the 14 female patients studied were performing almost none of their usual household tasks and two others were performing with substantial decrease in effectiveness or at markedly inappropriate times.

Three of the ten male patients had likewise markedly diminished their performance of household tasks prior to hospitalization, and three others ceased to help at home during the last month. Their functions were, however, less critical to maintenance of the household. All but two of the male patients in the sample held their jobs and performed more or less adequately in them up to a month or less before they were hospitalized.

Almost all performance of essential life tasks was impaired at the end, though many of the women continued to care for their children and the men to meet the requirements of the job down to the last few days. Indeed, these seem to be the minimal role functions that must in general be sustained if the family is to go on at all.

Extreme cases have been the pattern of marital interaction for months, but as long as the disturbed wife looked after her children or the disturbed husband managed to do some personal integration and some family integration was maintained. The findings were reported at the meetings of the American Sociological Society in Chicago.