DHEW Requests Blocked Funds For Research

A total of $4,693,400 in blocked foreign funds has been requested by DHEW in the budget for Fiscal Year 1961. Of this amount, $3,707,000 would be allocated to NIH for support of research in eight foreign countries.

Such funds are received from the sale to foreign countries of surplus U.S. agricultural commodities. Retained in the form of local currencies, the funds are used in those countries by the U.S., pursuant to negotiations between the U.S. and the country concerned, under the provisions of the Agricultural Trade Development and Assistance Act of 1954 (PL 480).

Fund Use Authorized

An amendment to this Act authorizes the use of such funds for the collection and dissemination of scientific and technological information, the conduct and support of scientific activities overseas, and projects “such as coordinated research against diseases common to all mankind or unique to individual regions of the globe.”

According to Secretary Flemming, the proposed amounts were not available to DHEW in 1960, and the suggested programs are new ones.

In the event authorization is

(See BLOCKED FUNDS, Page 7)

Surgeon General Outlines Flu Preparedness Plans

Preparedness plans of the PHS for a future influenza pandemic were outlined by PHS Surgeon General Burney at the closing session of the International Symposium on Asian Influenza, held here February 17 through 19.

Dr. Burney pointed out that the objective of the closing session was to crystallize recent experiences and make the information available for the next generation.

The PHS plans fall into four broad categories:

- Recognition of the pandemic
- Preparation of vaccine
- Use of vaccine, including problems of vaccine distribution and dissemination of information
- Research

(Continued on Page 8)

 HEALTH CAMPAIGN HEADED BY DR. FLEMMING, STARTS MARCH 1

Dr. Arthur S. Flemming, DHEW Secretary, has been named Chairman of the 1960 Federal Service Health Campaign for the second successive year. Honorary Chairman is Vice President Nixon.

The campaign, which begins March 1, will raise funds for six voluntary health organizations. Combined with this drive is the Federal Service Joint Crusade, which includes three international service and charitable agencies.

The campaign is the second and last to be conducted in the Federal Government this fiscal year. The six participating agencies formerly conducted separate fund raising efforts. They are the National Society for Crippled Children and Adults, United Cerebral Palsy Associations, American Cancer Society, American Heart Association, Muscular Dystrophy Associations of America, and National Multiple Sclerosis Society.

The three international agencies forming the Federal Service Joint Crusade are CARE, Crusade for Freedom, and the American-Korean Foundation.

Heading the drive at NIH are Chairman Floyd S. Daft, Director, NIAMD, and Co-Chairman Justin M. Andrews, Director, NIADD. Keymen have been named in each Institute and Division to solicit contributions.

As in previous years, there is no dollar goal and no agency quota to be met; however, it is the aim of the campaign to secure a generous voluntary contribution from each Federal employee in the National Capital Area. Dr. Daft has expressed the hope that NIH will achieve 100% participation by the close of the campaign on April 15.
James H. Rice Accepts Post at Public Health

James H. Rice, information specialist in the National Institute of Allergy and Infectious Diseases, has accepted the post of Information Officer, Office of the Chief, Division of Personnel of the Public Health Service. Mr. Rice assumes his new duties on March 1. Since the early 1960's he has contributed to the information program of the National Institutes of Health. Prior to his three and one-half years in the Information Office of NIAID, he was on the information staff of the National Heart Institute.

Mr. Rice, a native Washingtonian, lives in Rockville with his wife, three sons and one daughter.

Beneficiary Forms

It has been brought to the attention of the Employee Relations Section that some employees are in doubt as to the designation of beneficiaries of Federal Group Life Insurance, unpaid compensation, and retirement benefits. It is not necessary for any employee or former employee to designate a beneficiary unless he wishes to name some person or persons not included below, or to name them in a different order.

1. The widow or widower.

2. If neither of the above, the child or children in equal shares, with the deceased child distributed among the descendants of that child.

3. If none of the above, the parents in equal shares, or the entire amount to the surviving parent.

4. If none of the above, the executor or administrator of the estate of the deceased.

5. If none of the above, the next of kin under the laws of the state in which the deceased was domiciled.

Designation of a beneficiary for retirement purposes remains in effect until it is canceled by the designation of another beneficiary, or by a request to cancel the prior designation. However, designation for the beneficiary for Federal Group Life Insurance and unpaid compensation is canceled when an employee leaves the agency with which he filed these forms.

Further information and appropriate forms may be secured from the Employee Relations and Services Section, Building 1, Room 21.

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Broadened Research Grants Asked by DHEW Secretary

A proposal by DHEW Secretary Flemming to provide broader grants to medical, dental, and public health schools to strengthen their programs for research and research training has been presented to Congress in the form of a bill. Submitted to the House of Representatives on February 10, H.R. 10341 is a bill "To amend the Public Health Service Act to authorize grants-in-aid to universities, hospitals, laboratories, and other public or nonprofit institutions to strengthen their programs of research and research training in sciences related to health."

According to Secretary Flemming, the establishment of such a program of institutional research grants would carry into effect recommendations made by the Bayne-Jones Committee. The committee pointed out that Federal funds for research should be provided under conditions which give the institutions a substantial degree of freedom in deciding how to use the funds.

Under the proposal, funds for the general grants would be obtained by setting aside a uniform percentage, not to exceed 15 percent, of the NIH research grant appropriations. Applications for the grants would be reviewed by the National Advisory Health Council.

R. P. Miller Retires; With NIH 29 Years

Russell P. Miller, biologist with the Laboratory of Control Activities, DBS, retired February 29 after 31 years of Federal Service. Mr. Miller was engaged in the preparation of physical standards for such biological products as diptheria and tetanus toxins and antitoxins for use by manufacturers for standardization of commercial products.

He started his association with NIH in October 1931 at the old 25th and E Streets location, and came to the Bethesda reservation in April 1940. Prior to 1931, Mr. Miller was employed at St. Elizabeth's Hospital. After retirement, Mr. Miller hopes to continue his work as a biologist with the Woodward Research Corporation in Herndon, Va.

Mr. Miller was honored at a reception at Top Cottage on February 26.

One day in 1938, staff members of the Division of Biologies Control posed for a group picture, now located at 25th and E Sts., N. W. Shortly afterward the Division moved to its present NIH reservation. Of this original group, a number will be recognized as present NIH staff members. From left, bottom row: Dr. Karl Habel, Chief, Laboratory of Control Activities, DBS; Dr. V. J. MacPherson, NINDB; Elsie Fahrenthold, CC; Arlene Butterly, DBS; Lillie Bailey, NIAMD; John Kley, NIDR; Lucille Furman, NIMH; Pat Janet Gallagher, DGMS; Phyllis Snyder, DRG; Virginia Lundblad, DRS.

An exhibit entitled "The History of the Medical Department of the U.S. Army in World War II" will be on display in the CC lobby from March 8 to 14.

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Age Pigment Accumulation
Shows Constant Rate

Insoluble solids called age pigments, long known to be present in certain tissues of aged individuals, appear from National Heart Institute studies to accumulate in the cells of the human heart muscle at a constant rate throughout life, beginning in the second decade and ultimately displacing as much as ten percent of their volume. The process of myocardial age pigment accumulation thus appears to meet criteria set forth for a "basic biological aging process."

A primary objective of research in the biology of aging as conducted in the NHI Gerontology Branch is the identification of time dependent changes in structure and function which contribute to the probability of death characteristic of aged individuals. Four criteria of biologic aging have been tentatively adopted by Dr. Bernard L. Strehler and his colleagues in the Gerontology Branch for the identification of phenomena of biologic aging: These criteria are: 1) universality, 2) time dependence, 3) intrinsicality, and 4) deleteriousness.

Evidence from NHI studies of age pigment in human heart suggests the process of its accumulation there may meet all four criteria.

Measurement of age pigment in microscopic sections of heart muscle obtained at autopsy from 156 human hearts showed homogeneous distribution of the brown pigment granules in all individuals above age 10, regardless of age, sex, or cardiac pathology. No age pigment could be found in the hearts of individuals below age 10. These findings suggested conformity of the cumulative process to the first of the four criteria for biologic aging — universality ("the change should occur universally in all old individuals of the species and should be absent in the very young").

From the second decade, the average pigment concentration in the group studied increased at a constant linear rate and 1/3 percent of heart volume per decade. The measured fraction of heart muscle occupied by the pigment deposits, and the total heart pigment also showed constant linear rates of increase with age (2/3 percent per decade, and 100 milligrams per heart per year, respectively). This suggested the process conforms to the second criterion — time dependence ("the change should proceed gradually in an individual and in a population").

Pigment concentration was independent of sex, race, and various cardiac pathologies, including heart failure, suggesting conformity to the third criterion of biologic aging — intrinsicality ("the change should be a consequence of the action of time on the innate proper-

ties of the biologic system, not of preventable disease or accident").

The insoluble deposits were found to occupy as much as 10 percent of the intracellular volume of the heart muscle, or 30 percent of its total intracellular solids. The replacement of such a large proportion of the functional mass of a muscle with a non-contractile agent suggests possible impairment of cardiac function or reserve, hence possible conformity to the fourth of Dr. Strehler's criteria of biologic aging — detereionersiness ("the change should reduce the survival capacity of the organism in its natural environment").

In obtaining these measurements, it was necessary to determine the time-dependence of age pigment accumulation and its gross displacement of functioning units found in the population studied by Strehler strongly suggest the possibility of such conformity. The findings appear to constitute a significant advance in gerontology, the science which seeks knowledge of the phenomena of aging in terms of consistent natural forces, or biologic laws.

Dr. Strehler and Drs. Donald Mark, Albert Mildvan, Daniel D. Hendley, and Malcolm Goe have published their findings in the Journal of Gerontology. They are now attempting to isolate the age pigment to gain a better understanding of its nature. The effects of radiation exposure are also being studied to test the suggestion that radiation may accelerate aging.

Etiologic Role of Streptococci in Caries Reported

Studies demonstrating the etiologic role of certain oral streptococci in experimental caries were reported by Drs. R. J. Fitzgerald, Laboratory of Microbiology, and P. H. Keyes, Laboratory of Histology and Pathology, National Institute of Health, presented before the American Society for Investigating the Chicago Dental Society.

In a series of earlier studies, Dr. Keyes showed that the so-called resistance of certain laboratory animals was due, in part, to the absence of necessary microflora. He demonstrated, for example, that caries-active female rats could transmit the disease to their offspring, and that such transmission could be terminated by antibiotics. The progeny subsequent to the antibiotic treatment would remain caries free until reinfected through contact with caries-active animals.

With this mechanism established, a collaborative study was designed with Dr. Fitzgerald to identify specific bacterial agents involved in the caries process. Utilizing refined culture techniques, five different strains of streptococci isolated from various lesions in hamsters were shown to induce caries when introduced singly and in combination into the mouths of caries-resistant animals. Since prior to some of the experiments the infectious organisms were made streptomycin-resistant, it was possible to isolate and precisely identify each strain during and at the end of the test period.

As yet, the individual strains have not been classifiable serologically; however, they appear to occupy a position intermediate between the enteric and lactobacilli, and diptheroids, no caries developed. The results of these important studies have already had a widespread effect in the field of experimental caries; and they have opened the way with new methods for the identification of specific microbial agents and determination of host specificity in human caries.
Influenza Conference Papers
Cover Wide Area of Studies

The following are authors' summaries of some of the papers presented at the International Symposium on Asian Influenza, held at the National Institutes of Health February 17-19. The conference was co-sponsored by the National Institute of Allergy and Infectious Diseases and the University of Southern California School of Medicine, under the chairmanship of Dr. Clayton G. Loosli, USC.

MECHANISM OF SPREAD

By Dr. William S. Jordan, Jr., University of Virginia

Asian influenza was truly the Phineas Fogg of diseases, spreading around the world in less than twelve days with a rapidity to delight the most sanguine of Jules Verne virologists. The global dissemination has been attributed to the capacity of Asian virus to infect a highly susceptible population. Beyond beholding the obvious, what more needs to be said about how Asian influenza spread?

Students of past epidemics and pandemics have noted that clinical influenza spread rapidly even before the advent of fast transportation, and that dates of maximal incidence did not provide good evidence of routes of spread. Such discrepancies spoiled the case-to-case transfer explanation, and prompted several suggestions as to how a new antigenic strain of virus could appear within a short space of time in widely separated countries: 1) widespread preseedings of virus masked in form, with its almost simultaneous dissemination to infectivity; 2) simultaneous mutations in multiple foci; 3) mutation on a single occasion followed by rapid spread.

The abundance of data collected as Asian virus extended throughout the world in 1957 established direct lines of transmission from one focus to another, and makes it unnecessary to invoke multiple mutations to explain pandemic occurrence.

Do the data also disprove the suggestion regarding preseedings of virus and propagation to infectivity? Not necessarily. On the contrary, the behavior of Asian influenza lends support to this concept. How else can we explain the fact that, after the introduction and multiple seeding of virus in the U.S. during the summer, outbreaks were constantly limited to the initial foci and similarly limited to the foci to which they were transferred? And how can we account for the unexpected phenomena of epidemic influenza among school children and then spread to preschool children and adults. The first community spread in the U.S. was associated with a July opening of schools in Louisiana. In Liverpool, independent schools started their terms three weeks later. The high attack rate consistently noted in the 5-19 year olds has been attributed by some to the high rate of exposure in schools rather than to greater susceptibility. Conversely, it has been suggested that the low attack rate among older people may have been due to lack of contact with school children rather than to greater resistance attributable to specific antibodies.

Family Exposure

What part did exposure within the family play in the dissemination of virus? In some outbreaks, attack rates increased with increase of family size, in others, differences in family size had no effect. Although the data are not detailed enough for analysis, it is suggested that the observed attack rates could have been due to a function of the age of the children in the family as the number of individuals.

What evidence is there for intrahousehold spread? After studying an earlier epidemic, that due to A1 virus in 1961, we found that the paradox of an "epidemic" of disease with a very high attack rate and against which there appears to be little immunity in the population which the school child does not bring home from his school and which does not appear to be transmitted inside the home.

He made this observation because families in families and subsequent cases showed no special age preference, and because, in an analysis of intervals from the first case, susceptibilities fell rapidly and was observed to spread widely in a susceptible population. The most susceptible group proved to be the 5-19 years olds, and the high attack rate in these children resulted from the complex interaction of a number of variables: non-specific susceptibility, lack of protective antibodies, and contact in schools. The school appeared to be a much more important site of virus dissemination than did the home.

The long intervals between the first and second cases in families, and the longer interval between first introduction of virus and epidemics in nations suggest that the possible seeding of "masked" virus prior to the appearance of clinical disease should be investigated the next time we have an opportunity to anticipate an epidemic.

EFFECTS OF ULTRAVIOLET

By Dr. Ross L. McLean, Emory University

The advent of Asian-strain influenza created new opportunities to study the mechanism of transmission of epidemic influenza. Prior work on this subject included studies of ultraviolet radiation of barrens, recreation halls, and other places of congregation. These studies were interpreted as showing a "partial effect on certain types of respiratory diseases" but not sufficient to justify a recommendation for general use.

What did we learn about first cases and intervals during the Asian influenza epidemic?

Susceptibility

Answers to this and to the preceding questions were sought by examinations of data derived from study of a population of families in Clevelend. Asian influenza did, in truth, spread widely in a susceptible population. The most susceptible group proved to be the U.S. leaders in the field of influenza research attending the recent international conference at NIH include, from left to right: Drs. Maxwell Finland, Boston City Hospital; Thomas Francis, Jr., Uni­versity of Michigan; Fred M. Davenport, Director, Commission on Influenza, Univer­sity of Michigan; Colin C. MacLeod, University of Pennsylvania Hospital; and Clayton G. Loosli, Conference Program Committee Chairman and Dean of the University of Southern California School of Medicine.

(Continued on Page 5, Column 1)
Nuclear Magnetic Technique Furthers Molecule Studies

Physical biologists at the National Institute of Arthritis and Metabolic Diseases have used an advanced electronic technique known as nuclear magnetic resonance to study the atomic structure of porphyria, complex molecules found in hemoglobin, chlorophyll and other important biological materials. The porphyrins, strontated that the new technique is useful for analysing the structure of large molecules and has revealed the presence of "ring current" around the porphyrin molecules. It also demonstrates the kind of research carried on in the new and growing science of physical biology.

The porphyrins are pigments which occur throughout the plant and animal world. They form the base of chlorophyll in plants and hemoglobin in man and readily combine with metals such as iron and magnesium. The porphyrins are of fundamental importance to many oxidation-reduction reactions in the body and are also known to affect radiation sensitivity.

Persons afflicted with one of the forms of porphyria, a rare disorder of porphyrin metabolism, are sensitive to light and must avoid direct exposure to the sun. In radiation research certain porphyrin compounds have been used to protect animals against lethal doses of radiation.

The NIAMD study was done to learn more about the atomic structure of these important molecules. It utilized nuclear magnetic resonance (NMR) techniques. The study was reported by Dr. Edwin D. Becker and Robert B. Bradley.

Lipid Movement Rate Studied

Quantitative studies on the rates of movement into arterial walls of proteins, lipids, and lipoproteins are being carried out at the National Institutes of Health. These studies are of interest in connection with the filtration theory of atherosclerosis which holds that atherosclerosis is a result of the passage of lipoproteins from serum into arterial walls.

Dr. Leroy Duncan of NHI has devised methods for determining the rates of entrance of proteins and lipids into the walls of arteries. Studies on the entrance of labeled albumin and labeled cholesterol into the arterial wall of the normal dog have been completed. Studies on the rates of entrance of cholesterol and low density lipoprotein into the arterial wall of the dog developing experimental atherosclerosis are in progress.

The studies on albumin and cholesterol in the normal dog have shown that both of these substances enter the inner layer of the arterial wall with a gradient of rates. The rate of entrance is fastest in the ascending thoracic aorta and decreases progressively down the length of the aorta. The rate of entrance in the ascending aorta is five times that in the abdominal aorta.

The gradient of rates is not due to variations in lateral blood pressure since the mean pressure is the same down the entire aorta. The gradient with the circumferential tension exerted on the wall of the aorta by the blood since this tension, which tends to stretch the aortic wall, is in the circumferential direction.

The following theory is advanced to account for these findings:

Circumferential tension facilitates the passage of lipoprotein into the aortic wall by widening the pores between the endothelial cells lining the aorta. It is through these pores that protein is thought to pass. The theory has implicit in it the assumption that the endothelial layer exerts a part, although a small part, of the force exerted by the aortic wall against the circumferential tension exerted by the blood. This theory is being tested in additional experiments.

The labeled cholesterol fed to the dog was incorporated into their normal aorta. The studies thus furnish basic information on the passage of normal lipoproteins into arterial walls.
Emmonis Crescens Fungus Described at Conference

A species of new and unusual fungus pathogen of rodents has been transferred to a new genus, Emmonis, named for a National Institute of Allergy and Infectious Diseases scientist, Dr. C. W. Emmons. The fungus is designated Emmonis crescens.

When inhaled by its rodent host, a spore of Emmonis crescens is 8 to 40 microns in diameter. The spores appear to be incapable of further growth and do not reproduce as long as they remain in the animal. In spite of their enormous size, which makes them easy to see with the naked eye, these fungus cells cause in the lungs of epidemic rodents. The disease it causes in rodents is called adiaspiromycosis to denote the immense increase in the size of the fungus cell. The disease causes in rodents is called adiaspiromycosis to signify the failure of the fungus to disseminate in the animal. In spite of the size of the fungus and its wide geographic prevalence, pathologists and mammalogists appear to have overlooked it or perhaps have mistaken it for a worm or other parasite. It has not yet been found in man.

Dr. Jellison, collecting and studying material in Europe during the summer of 1960, found E. crescens in Norway, Sweden, Finland, France, Yugoslavia, Africa, and within 50 miles of the Arctic Circle. In Stockholm, examining preserved museum specimens, he found it in a vole trapped 15 years ago. Dr. Jellison has also discovered the fungus in rodents of the United States, Korea, and Ecuador.

In 1942, Dr. Emmons found a similar fungus that was frequent in the lungs of rodents in southern Arizona. This was designated Haplosporangium. Recently it was transferred to a new genus, Emmonis, by Italian mycologists Ciferri and Montemartini.

Other contributions to the control of adiaspiromycosis include: The virus was grown in mouse embryo cells in tissue culture and recovered from the fluid medium of the tissue culture. Then the protein extract of the virus was removed and the viral nucleic acid isolated and injected into embryonic cells in tissue culture. When the medium from this tissue culture was injected into hamsters, it caused tumors in 100 percent of the animals within 18 days. When the enzyme DNase was added to the isolated nucleic acid it became non-infective, but was resistant to the action of RNase. Results of different nucleic acid preparations into animals will be reported later.

The studies suggest that the nucleic acid of the SE polyoma virus is DNA, and that the latter is infective when extracted and purified from a virus suspension. The work was reported by Dr. G. A. Di Mayoreo of Sloan-Kettering Institute for Cancer Research; Dr. B. E. Eddy, DS, NIH; Dr. S. E. Stewart, SCIT; and W. S. Hester, DBS, NIH, and C. Friend and A. Bendich of Sloan-Kettering Institute.

1. Emmonis crescens. Two cells of the fungus in the lung of a naturally infected rodent.
2. E. crescens. Colony of the fungus in culture in a 4-inch petri dish. Two weeks old.
3. Spores of the fungus from a culture.
obtained for the use of the blocked currencies in the coming fiscal year, the NIH program would support research in the following countries: India, Pakistan, Indonesia, Brazil, Egypt, Israel, Yugoslavia, and Poland.

In accordance with the general objectives of the program, the intent will be to support research which will have wide significance and importance in the control, eradication, or understanding of disease and disease processes.

Projects Linked to WHO

Projects will be those to which the countries themselves give a high priority but which they cannot adequately support. In some cases the work in several countries will be coordinated against targets of common concern. This will include studies with respect to diseases whose epidemiology is global. Such projects will be linked with those being carried out by the World Health Organization.

Disease areas to be investigated are cholera, schistosomiasis, filariasis, toxoplasmosis, virus diseases, cardiovascular diseases, nutrition, and cancer.

Follow Normal Procedures

The projects will be handled either as grants or contracts, following the normal NIH procedures. Technical advice from scientists in the countries concerned will be utilized to the maximum possible extent.

When approved, each project will have funds allocated for the duration, up to five years, as a means of insuring stable support. The funds will support only additional research in those projects not normally eligible to dollar appropriations.

SOVIET

(Continued from Page 2)

companying the group on the entire tour.

A return mission of U.S. scientists headed by Dr. Floyd S. Davis, NIH Director, will go to the U.S.S.R. next September.

Dr. Burney has also proposed that an American delegation in the field of maternal and child care go to the Soviet Union in October.

Subject to the approval of the Soviet Ministry, he is suggesting that subsequent delegations visit the U.S.S.R. on the following schedule: infectious diseases and microbiology, March 1961; neurophysiology and pathology, April 1961; metabolism and genetics, October 1961; and medical ecology, September 1961.

In addition, the agreement provides that a joint meeting on polyomavirus will be held in Moscow during 1960-

New Aging Handbook Provides Survey

A comprehensive survey of literature in the field of gerontology is provided for the first time by the "Handbook of Aging and the Individual: Psychological and Biological Aspects," edited by Dr. James E. Birren, Section on Aging, NIMH.

Five of the handbook's 24 chapters were contributed by Dr. Birren and Drs. William Bondareff, Alfred D. Weiss, Edward A. Jerome, and Jack Botwinick, all of the NIMH Section on Aging.

The handbook, published in December 1959 by the University of Chicago Press, emphasizes age changes in human beings and the bases for these changes in both biological and social processes.

Lack of assembled information has been a handicap to planning or research in the behavioral aspects of aging. It is expected that the handbook will facilitate systematic research and the development of instruction in the causes of aging.

Appointment Made in NIMH Research Grants

Dr. Louis A. Wienekowski, NIMH, has been appointed Assistant Chief of the NIMH Research Grants and Fellowships Branch.

Since January 1966, Dr. Wienekowski has assisted Philip Saper, Branch Chief, in planning and directing the program of the Branch, and has participated in the formulation of overall policies.

Dr. Wienekowski received his Ph.D. from the University of Buffalo. Before joining NIMH, he was associated with the Human Resources Research Office at George Washington University.

Dr. Elinor S. Brush, research psychologist, will serve as Staff Assistant to Dr. Wienekowski.

Blum Article Cited

Dr. Harold F. Blum, NCI, is one of four recipients of a new Sigma Xi scientific fraternity award. He was cited for his article, "Quantitative Aspects of Cancer Induction and Growth: As Illustrated in Carcinogenesis by Ultraviolet Light," which appeared in the American Scientist.

Dr. Blum, a member of the staff of the Laboratory of Physiology, is presently detailed to the Department of Biology, Princeton University.

The British Medical Association states that a 0.05 percent concentration of alcohol in the blood is the highest that can be accepted as consistent with traffic safety.
Surgeon General Outlines Flu Preparedness Plans

(Continued from Page 1)

A condensed version of Dr. Burney's discussion of these four points follows:

I shall not belabor the need for improving the reporting systems throughout the United States and for tracking stations for following epidemics of whatever cause. The Public Health Service's reporting system comprises our foreign quarantine division, with its officers stationed in various parts of the world and its liaison with private organizations such as transportation companies, plus our State and national health reporting systems. This network is integrally related with that of the World Health Organization. We shall strive to improve these services for the continuing monitoring of various types of infectious diseases.

Readiness Stressed

The influenza diagnostic laboratory facilities in the Continental United States and in U.S. military installations overseas are ultimately tied in with the WHO surveillance system, and about 70 of them receive immediate support from the National Influenza Center for the America which is established within the Public Health Service and is located at the Communicable Disease Center in Atlanta. The Center and its associated laboratories must remain in readiness to initiate promptly, and carry through to completion, antiviral studies on newly isolated strains of influenza and serological assessment of immunity of a population.

Over and above this, we must be prepared to put into the field small, mobile teams which will be able to establish the precise etiology of influenza outbreaks wherever and whenever they occur and to return to their base laboratories with strains and materials that can be used for production of diagnostic reagents and vaccines.

Finally, we shall maintain a competent advisory group which will stay abreast of all types of influenza and on the nature of the virus so that we can advise the Surgeon General when a local epidemic shows possibilities of becoming a pandemic.

Advance planning must provide lists of types of persons who should receive vaccine on a priority basis. These categories of persons will fall into two general classes. One will include those who might be considered medical risks and whose immunization might prevent death, among whom will be the aged, the debilitated, and pregnant women. The second will comprise those persons who should be kept healthy because of their essentiality to the nation and the community. As an ancillary value, such list would provide the manufacturers with an estimate of the minimal amount of vaccine which would be required in an emergency.

We have time before the next pandemic to work out with the various health groups concerned a better method for voluntary control of influenza vaccine when it is in short supply. I feel confident that in developing plans for informing and educating practicing physicians and other groups, if our story is clear, convincing, and told in everyday understandable terms, it can and will be quickly disseminated through national channels.

News Media Important

Like the professional public, the general public must also get information from local sources before it is ready to act. Much can be accomplished when representatives of the local press, radio and TV stations, meetings of clubs, business, church, and other groups. If our story is clear, convincing, and told in everyday understandable terms, it can and will be quickly disseminated through national channels.

The importance and urgency of influenza studies are, I trust, evident in the priority given this area by the Public Health Service. We have created a National Advisory Committee on Influenza Research. And we have set up a Subcommittee of investigators to enable the parent group to operate with maximum efficiency and dispatch. We look to the Subcommittee to stimulate and maintain long-term research interest in influenza process research needs, and to help establish the general climate which is indispensable to productive study.

We will foster research on the diagnostic capacity of influenza virus, on the nature of the virulence factors, on detailed analyses of the full spectrum of antigens of all known prototype strains of the viruses, and on the pathogenesis and physiological abnormalities of the disease in man. In brief, we shall look to the subcommittee of investigators to encourage basic studies on the virus and on the abnormalities it produces in man in order that this knowledge may be used during the next pandemic.

In the area of applied or developmental research we should sponsor research on chemotherapy and chemophrophylaxis of influenza and improve the methods for lengthening the protective period afforded by vaccines. In the latter category, research should be pushed on the development of adjuvants to which the aged and others who are allergic to vaccines, are capable of greatly boosting the antibody levels produced by immunization. Experimental results to date are sufficiently encouraging to warrant the intensive exploration of the whole problem.

More Research Needed

Many other areas might be cited in which research could profitably be initiated or expanded. I will mention only a few: the use of germ-free animals to explore the relationship between bacterial infection and influenza virus infections; neurological research on the causes of myelitis and post-influenza myasthenia; and studies relating to the cardiopulmonary complications common to influenza. These examples and many others one might name suggest that influenza is still very much an unfinished business.

The Kinds of Research I Have in Mind

I have in mind will provide a nucleus of intelligent, trained people who will be available at a moment's notice to provide the Surgeon General of the Public Health Service in 1989 with the kind of essential advice that he will require if faced with a pandemic of influenza.

In preparing the legacy for my successor who will hold office when the next pandemic strikes, I hope to leave him with three different kinds of sound investments. These are (1) a finite set of operating plans based on the experience of 1918-1919; (2) a continually accumulating body of scientific information resulting from sound research on influenza carefully fostered by the kind of essential advice that he will require if faced with a pandemic of influenza.

Mr. Phillips

James E. Phillips, Administrative Officer of the Lab Aids Branch, DRS, died of a heart condition Thursday evening, February 18, at Georgetown University Hospital, following a short illness. He would have had 40 years of service with NIH in August of this year.

"Jimmy" Phillips started his long PHS career as a messenger boy in the old Hygienic Laboratory on August 11, 1920. Less than 16 years old at the time, he had already seen government service before it was called that—since September 1919, when he worked as a messenger in the Civil Service Commission.

At NIH, he rose rapidly to become Assistant to the Chief of the Business Office, which was the forerunner of the centralized services now shared by the Office of Administrative Management and the Division of Research Services. In 1949 he was appointed to the position he held until his death.

During his years here he hired and trained many of the young men who were to become future NIH executives, including James B. Davis, Chief of the Supply Management Branch, OAM, and Albert H. Siepert, former Executive Officer, now Director of Business Administration, National Aeronautical and Space Agency.

Jimmy was a member of the International Laboratory Glassblowers' Union, the NIH Uniform Regulations Committee. He also headed the Caging Specifications Committee. Born September 14, 1904, in To­koma Park, Jimmy attended the Rockville High School from 1916 to 1918 and took business and accounting courses at Benjamin Franklin University, Columbia Technical Institute, and Steward's Business College.

In January of this year he was an honored guest at the Old-Timers Club dinner. Many scientists, administrators, and technicians who have worked at NIH for over 12 years.

Jimmy and his wife, Hazel Hor­ner, lived for many years at the same address, 1750 Harvard Street, N.W. Mrs. Phillips is a teacher in the Parkwood School, Kensington.

Other survivors are a sister, Mrs. Lucretia White, and brother, Bruce P. Phillips, a parasitologist in the NIAID Laboratory of Germfree Animal Research.