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the NIH Record

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NATIONAL INSTITUTES OF HEALTH
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Cholesterol Study Wins Nobel Prize For PHS Grantee

Joint winner of the Nobel Prize for medicine, Prof. Konrad E. Bloch of Harvard, has been receiving research support from the Public Health Service since 1950. The 52-year-old biochemist will share the $52,500 1964 Nobel Prize with Prof. Feodor Lynen of the Max Planck Institute in Munich, as

Prof. Konrad Bloch, facing an array of microphones, is interviewed at press conference following announcemnt that he was joint winner of the Nobel Prize for medicine.

a result of their research into the mysteries of cholesterol.

Prof. Bloch is currently being aided by a $97,798 grant from the

(See NOBEL PRIZE, Page 6)

NIH Enters Final Week Of Combined Campaign With Quota in Sight

BULLETIN

As this issue of the *Record* went to press, Dr. Confrey, NIH Campaign Chairman, announced that the Combined Campaign would be extended until Friday, November 6, to give reporting units a further opportunity to reach 100 percent participation.

The Combined Federal Campaign at NIH entered the last scheduled week with 83 percent of its goal. At this point, almost 80 percent of NIH employees have participated in the campaign.

Six reporting units have exceeded their goal by the end of the fourth week and three units—DRFR, NIGMS, and DRG—have reached both 100 percent participation and goal.

Dr. Eugene A. Confrey, NIH Campaign Chairman, expressed satisfaction with the 14.5 percent gain in quota over the previous report, and indicated that another substantial increase was expected during the final week of the campaign.

With nearly 20 percent of NIH employees remaining to participate, Dr. Confrey expects NIH to get very close to the goal of $154,573.

(See CAMPAIGN, Page 8)

Special Committee to Evaluate Use and Effectiveness of Signs on NIH Grounds

This building sign, split in two by a speed limit sign, confronts visitors as they enter the NIH grounds from Wisconsin Avenue on South Drive. Even if the sign weren't split, its directions still would appear confusing.—PSB Photos.

By Julian Morris

Are traffic and building signs at NIH doing their job? This is the question under study by a special committee organized by the Plant Safety Branch. The committee will evaluate the use and effectiveness of the hundreds of outdoor signs which are located on the NIH grounds.

Among the problems which prompted the committee's formation are:

- NIH buildings, though clearly labeled on maps, often lack clear identification on the buildings themselves.
- Parking violations on NIH grounds frequently result from inconspicuous or non-existent signs rather than from a deliberate disregard of regulations.

Signs Confuse Visitors

- Visitors to NIH are often bewildered by a confusing conglomeration of directional signs in one area and a complete lack in another.

Acting on a recommendation by Dr. James A. Shannon, Director of NIH, to improve the appearance and effectiveness of outdoor signs, a sign committee will investigate the usefulness, readability, appearance, initial cost, durability of material, and cost of maintenance of signs on the NIH reservation and on other Government and private installations in the Washington area.

The members of the sign committee, selected to broadly represent different sections of NIH are: Inez Demonet, Medical Arts and Photography Branch, DRS; Art Catlin, Office Services Branch, OD; R. H. Henschel, Executive Officer, NHI; Clifford F. Johnson, Chief, Office of Research Information, OD; and Earl Laurence, Adminis-

(See NIH SIGNS, Page 5)

First Construction Grants Awarded for Mental Retardation Research Centers

The first two construction grants for large-scale, mental retardation research centers have been awarded by the Public Health Service to Albert Einstein College of Medicine of Yeshiva University in New York, and to the University of Washington School of Medicine in Seattle.

In announcing the awards—$3.75 million to Albert Einstein and $6.04 million to the medical school at the University of Washington—Surgeon General Luther L. Terry said the centers will be the first of several large mental retardation research and research training centers to be built throughout the country in the next few years.

The grants provide about 75 percent of the anticipated cost of each of the centers, both of which are expected to be completed in 1968. Each institution has pledged to use its center for research and training in mental retardation and related aspects of human development for 20 years.

The two awards culminate almost a year of intensive planning and collaboration with the two universities by the National Institute

(See CENTERS, Page 7)

Remodeled NIH Fire Station To Hold Open House Friday

An Open House will be held at the newly remodeled NIH Fire Station at the south end of Building 12 on Friday, November 6, from 1 to 3 p.m.

Fire Marshal Kenneth W. Gettings and Chief Charles K. Keys of the NIH Fire Department, Plant Safety Branch, invite all employees to tour the building, inspect the equipment, and enjoy a cup of coffee and cookies.

the NIH Record

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The NIH Record reserves the right to make corrections, changes or deletions in submitted copy in conformity with the policy of the paper and the Department of Health, Education, and Welfare.

NEWS from PERSONNEL

EXCLUSIVE RECOGNITION SOUGHT

Two employee organzations have submitted requests to NIH for recognition which will allow them to act as the exclusive bargaining agent for appropriate units of employees.

The American Federation of Government Employees, AFL-CIO, Lodge 2419, has requested exclusive recognition for a unit comprised of non-supervisory guards and firefighters and for two other units of designated wage board employees. The Washington Area Metal Trades Council seeks exclusive recogniton for all non-supervisory wage board employees.

Secret Vote Planned

Employees affected by the requests will have an opportunity to vote by secret ballot on whether they desire union representation and, where appropriate, which organization they wish to have represent them.

An employee organization that wins exclusive representation as a result of an election is given the right to act for and to negotiate agreements covering all the employees in the unit.

A series of bulletins on Employee Management Cooperation at NIH will be released by the Personnel Management Branch, providing basic information for a better understanding of the provisions of Executive Order 10988, "Employee Management Cooperation in the Federal Service."

TRAINING REPORTS

All NIH personnel are reminded that training they complete should be reported in order that knowledge and skills thus acquired can be recorded as part of their permanent records and be considered when vital decisions affecting their careers are made.

When a civil servant or commissioned officer completes a period of training taken at another Government agency or at a non-Government facility, his supervisor should notify the Personnel Office on Form PHS-3470, "Certification of Completion of Out-Service Training."

In-service training need not be so reported since it is recorded by the office conducting the training. This information then is made a part of the employee's official qualifications record.

All outside formal training should be reported—whether paid for by the person or by the Government under the Government Employees Training Act (civilians) or the Public Health Service Act (commissioned officers).

CAR POOL

With traffic and parking space conditions growing more acute each day, employees who drive alone to and from work may be interested in car-pooling.

As a service to employees, NIH provides locators in several buildings for prospective car-poolers—in Building 31, adjacent to the cafeteria; in the Westwood Building on the first floor, south side of the corridor; and in the new Wiscon Building.

A card form, PHS-4386 "Car Pool Locator," should be completed and placed in the bin provided for the employee's area of residence.

A supply of cards is at the site of the locators.

Russian Films Next in Silent Classics Series

The next presentation in the classic silent film program of the NIH Recreation and Welfare Association will be Sergei Eisenstein's 1925 epic, "Potemkin." This feature-length picture will be preceded by three Russian short subjects.

Showings will take place in the Clinical Center auditorium next Saturday and Sunday, November 7 and 8, at 8 p.m. All NIH employees are invited to attend. Admission is free.

Dr. Eberhart Appointed To Facilities Committee

Dr. John C. Eberhart, Associate Director for Intramural Research, National Institute of Mental Health, has been appointed a member of the NIH Research Facilities Advisory Committee (RFAC). He replaces Dr. Robert H. Felix, who retired last month as NIMH Director.

The RFAC reviews and evaluates new proposals and preliminary plans for research facilities. The committee, with its broad knowledge of NIH programs, advises the Director of NIH on the appropriateness of the facilities, siting and design concept.

Normally the committee reviews the proposed siting, the diagrammatic plans, and the exterior concept. Significant problems of design having major impact on research programs scheduled for a building are also brought to its attention.

Other committee members are Chris A. Hansen, DRS, Chairman; Dr. G. Burroughs Mider, OD; Richard L. Seggel, OD; Dr. Jack Masur, CC; Dr. Kenneth M. Endicott, NCI; R. H. Henschel, NHI; and Howard M. Biggs, DRS.

The director of the program for which a building is intended is automatically included as a member of the committee for meetings involving that particular building.

Obviously proud of his achievement, Alexander Johnson, a foreman in the Housekeeping Services Section, OSB, stands alongside one of the eight surplus cleaning carts which he redesigned to carry all supplies and equipment needed for an entire day's work. Mr. Johnson's superiors estimate that the redesigned carts save at least two hours a day per man in travel time alone. Mr. Johnson received a $75 award and certificate "in recognition and appreciation for submission of a suggestion beneficial to the Service." —Photo by Bob Pumphrey.

DRG to Use Computers To Prepare Notices of Research Grant Awards

The Division of Research Grants will soon be producing research grant award notices by computer for all NIH Institutes and Divisions and some Divisions of the Bureau of State Services.

This new operation will relieve Institute and Division personnel of a sizeable workload involving typing, proofing, and arithmetical operations.

Following the National Advisory Council meetings, a computer will prepare Notice of Action forms for all applications recommended for approval.

These will then be forwarded to the appropriate Institutes and Divisions. The notice forms will show the computer records for such items as funds and dates, so that the awarding component can verify the data submitted and add any necessary information.

Form Returned to DRG

When final action is decided upon by the Institute or Division, the action form will be returned to DRG as notice to prepare an award document.

Any new information returned on an action form will be added to the magnetic tape record and the award notice to the applicant will then be printed out.

Simultaneously, a listing of the awards will be prepared for Institutes and Divisions This tentative approval list will be forwarded to the awarding component for signature and processing.

The new system was devised by a 3-member team of analysts from the Management Policy Branch, OD, attached to the Office of the Associate Chief for Analysis and Statistics, DRG.

The analysts, Roberta M. Downes, James F. Dybvad and Paul J. Wintermyer, were recently cited by the Associate Chief and presented Superior Performance Awards for their work.

NIMH Needs Left-Handers For Manual-Dexterity Test

Are you a southpaw looking for a button-tapping good time? Well, now's your chance. Left-handers of all ages and either sex are urgently needed as subjects for manual-dexterity tests by the NIMH Section on Aging.

The test, which promises to be fun, takes only 10 to 15 minutes. Those interested should call Virginia Marbley on Ext. 64932. Testing will begin on Monday, November 9. A limited number of right-handers also are needed for the tests.

Study Identifies, Traces Tissue Disposition of Circulating Histamine

Scientists from the National Institutes of Mental Health and Arthritis and Metabolic Diseases have found that circulating histamine in animal tissues is transformed into compounds that are retained by the body for long periods of time.

It is well known that the symptoms of most human allergic conditions and allergic drug reactions can be attributed to histamine released into the circulation.

However, until recently, the fate in the body of this released histamine, whether it was directed to specific target organs and how it acted to cause allergic symptoms, was not known.

Earlier investigators had identified the metabolites of histamine in the urine, but there had been no thorough study of the tissue disposition of circulating histamine.

Study Uses Rats, Mice

In order to determine the course in the body of circulating histamine, investigators have examined the tissue disposition of circulating radioactive histamine in rats and mice.

Following the intravenous administration of radioactive histamine, it was found to be rapidly metabolized in mice, but small amounts of histamine persisted for as long as 48 hours.

Methylhistamine was quickly formed and after 30 minutes was present in higher concentrations than the original histamine.

The retention of histamine in tissues for such long periods of time suggests that it is stored in such a way as to protect the amine from enzymatic destruction.

All tissues, except the brain, had a higher concentration of histamine than blood. Although the concentration of radioactive histamine in the brain was less than in the blood, the amounts in the brain were found to be large enough to indicate that histamine can cross the blood-brain barrier.

Striking Observation Noted

A striking observation was the formation of two other metabolites, imidazole acetic acid and its riboside, from the circulating histamine. These products were retained by the body in amounts 10 times as great as the retention of histamine itself.

Imidazole acetic acid has been shown by others to be even more effective than cortisone in protecting mice from anaphylaxis, a condition resembling an overwhelming allergic reaction.

Thus, these findings may have important implications for a further understanding of the mechanism of allergic reactions. It would appear that histamine normally is transformed in the body to a compound which is an extremely potent antihistaminic.

The report of these findings by Drs. Soloman H. Snyder and Julius Axelrod, Laboratory of Clinical Science, NIMH, and Dr. Hugo Bauer, Laboratory of Biochemical Pharmacology, NIAMD, appeared in the Journal of Pharmacology and Experimental Therapeutics.

'Rare . . Praiseworthy . . Noble'

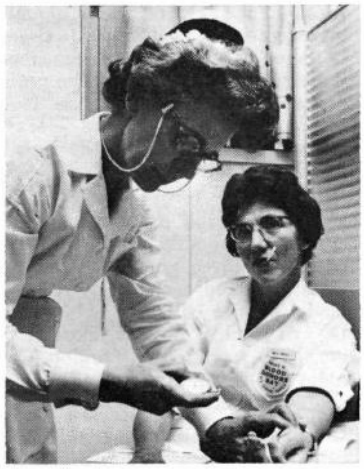
Dr. Raymond O. Dart (center, seated), Director of the Red Cross Regional Center, poses with 10-year, full-gallon blood donors honored with certificates and gold pins on Blood Donor Day. Seated (L to R): Phillip J. Webb, NCI; Dr. Marian R. Yarrow, NIMH; Dr. Dart; Dr. William R. Carroll, NIAMD; Donald R. Goldthorpe, NIGMS. Standing: George R. Duvall, NINDB; Dr. Karl Frank, NINDB; Donald B. Spencer, NHI; Joseph M. Morel, CC; Richard S. Whitt, NIAID; Dr. Herman G. DuBuy, NIAID; Irvin J. Liljegren, NIAMD; and Paul N. Carter, CC. Also honored, but unable to attend ceremonies, were: Dr. Robert D. Andrews, DRS; George W. Blakeslee, DRS; Robin H. Brooks, NCI; Philip W. David, NCI; Dr. Robert J. Fitzgerald, NIDR; Dr. Vincent E. Price, NIGMS; Dr. Julius White, NCI; Richard K. Lynt, Jr., NIAID; Dr. James W. Pratt, NIAMD; and Robert J. Savard, CC.—Photos by Sam Silverman.

"To give . . . is an easy matter and in any man's power, but to decide to whom to give . . . and how much and when, and for what purpose and how, is neither in every man's power nor an easy matter. Hence it is that such excellence is rare, praiseworthy and noble."

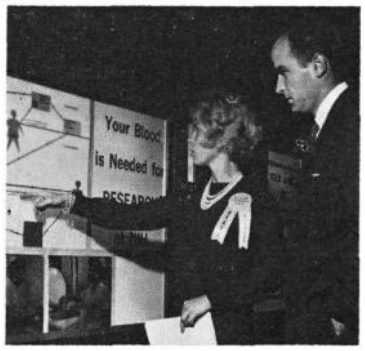
Dr. Jack Masur, Director of the Clinical Center, employed these words of Aristotle on October 9 to describe blood banking.

The occasion was Blood Donor Day at NIH. He was addressing the twenty-two 10-year, one-gallon donors; and he assured them that they had given in a way that was both "praiseworthy and noble."

The CC Blood Bank personnel, then, proceeded all day long to paraphrase the ancient philosopher in telling a steady flow of visitors about giving away blood: to whom to give it, and how much and when, and for what purpose and how.



Wanda Chappell, Chief Nurse of the Blood Bank, checks the pulse of Blood Donor Marguerite M. Smith. All blood donors are carefully screened before donating.



Peggy Alexander, Blood Bank receptionist, uses the bank's new exhibit to explain to Frank Smith, CC Information Office, the plasmapheresis process, whereby platelet-rich plasma needed by leukemia patients is separated from a donor's whole blood which is then returned to the donor. The process enables a donor to give blood more often since the red cells are not depleted.

NIH Scientists Describe Role of Amphotericin B In Producing Anemia

Investigators of the National Institute of Allergy and Infectious Diseases and the National Institute of Arthritis and Metabolic Diseases have concluded that anemia may be caused by Amphotericin B suppression of red cell production concurrent with pre-existing hemolysis.

Amphotericin B is an effective drug for many systemic fungal infections but may produce anemia as a side effect. The frequency, type, and mechanism of this type of anemia were studied in 30 patients with systemic fungal disease who received 37 courses of therapy.

A decrease in hematocrit of 11 units or more was seen during 28 of the 37 courses. The anemia that appeared during therapy was normocytic and norchromic in 16 of 18 patients in whom indices were determined.

Rate Not Affected

The anemia was not accompanied by reticulocytosis or erythroid hyperplasia. Red cell survival studies in five patients indicated that the rate of hemolysis was not affected by amphotericin.

The authors concluded that the anemia was caused by suppression of red cell production by amphotericin imposed on mild pre-existing hemolysis due to the systemic infection. The anemia was self-limited and the hematocrit volume returned to normal in all but three cases after the discontinuation of therapy.

The study, by Drs. Michael W. Brandriss and Sheldon M. Wolff, both of the Laboratory of Clinical Investigations, NIAID, and Dr. Russell Morres, of Oakland, California Naval Hospital, and Dr. Frederick Stohlman of Tufts Medical School, formerly of NIAMD, appeared in the Journal of the American Medical Association.

Embassy Women's Club Elects Mrs. Specht

The U. S. Embassy Women's Club of Tokyo elected Mrs. Heinz Specht President for the October 1964-March 1965 term at its semi-annual election meeting.

Mrs. Specht is the wife of Dr. Heinz Specht, Chief of the Pacific Office of the National Institutes of Health, established by the Office of International Research as part of its tri-continent program.

Mrs. Specht and other newly elected officers were honored at an election tea at the embassy residence by Mrs. Edwin O. Reischauer, wife of the U. S. Ambassador to Japan.

Myers to Head NINDB'S Puerto Rico Laboratory Of Perinatal Physiology

Dr. Ronald E. Myers, Director of the Laboratory of Neurological Sciences at Spring Grove State Hospital in Baltimore, recently was appointed Chief of the Laboratory of Perinatal Physiology of the National Institute of Neurological Diseases and Blindness in Puerto Rico.

Dr. Myers

Emphasis of the laboratory will be on long-range research on the central nervous system, particularly its developmental aspects.

Facilities of the laboratory include a free-ranging colony of monkeys on the island of Cayo Santiago, Puerto Rico, and a caged breeding colony on the grounds of the USPHS Quarantine Station in San Juan.

The interests of the laboratory are broad and include neuroanatomy, physiological analysis of behavior, neurophysiology, and primate ecology.

Expect New Sections

In addition, it is hoped to have sections on Experimental Neuropathology, Neurochemistry, and Electron Microscopy.

The carefully controlled pregnancies in the caged colony permit the laboratory to emphasize those aspects of its mandate relating to problems of brain damage as it occurs during intrauterine development, during the birth process, and during later life.

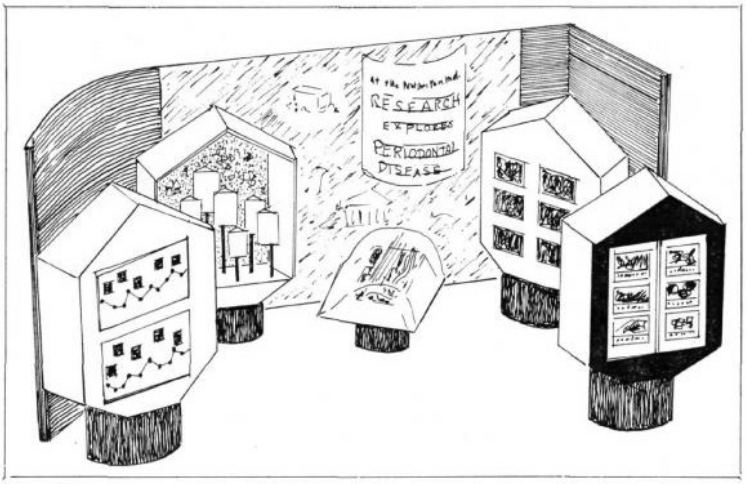
The laboratory welcomes the opportunity to carry on collaborative research with other scientists both inside and outside of NIH for all projects requiring its unique facilities.

Born and educated in Chicago, Dr. Myers received Ph.D. and M.D. degrees from the University of Chicago in 1955 and 1956. After military service, during which he served as research officer at Walter Reed Army Institute of Research, Dr. Myers received residency training in clinical neurology at the Johns Hopkins Hospital.

He is the author of approximately 30 research articles on brain damage, fiber connections in the brain, and neural mechanisms underlying memory, perception and learning.

The first recorded Federal appropriation for support of medical research—$35,000 to erect a new building for the Hygienic Laboratory—occurred in the FY 1902 Treasury Department budget.

New NIDR Periodontal Disease Exhibit Shows Role of 5 Research Disciplines



Artist's drawing of the new Dental Institute exhibit, "Research Explores Periodontal Disease," to be displayed next week at the Dental Association meeting in San Francisco.

The various ways in which dental research approaches a single disease entity are graphically demonstrated in a new exhibit, "Research Explores Periodontal Disease," to be displayed for the first time at the American Dental Association meeting, November 8-12, in San Francisco.

This National Institute of Dental Research exhibit shows, in a panoramic display, the role of five research areas in elucidating the problems presented by this one complex syndrome.

The exhibit demonstrates investigations in microbiology, tissue pathology, protein chemistry, tissue chemistry and epidemiology. Three-dimensional hexagons and a large transparent bubble contain the displays which are set against a mural of the NIH reservation.

All Labs Seek Factors

Every NIDR laboratory is involved in the search for the fundamental factors in periodontal disease. The exhibit shows varying approaches of the microbiologist, the pathologist, the biochemist, the histochemist and the epidemiologist.

The NIDR microbiologic studies demonstrated in the exhibit have led to isolation of a specific bacterial form (gram-positive, aerobic, filamentous type) shown to cause periodontal lesions in hamsters. These findings suggest prevention and treatment of the disease by chemotherapeutic control.

Various formulations containing antibiotics or fluoride salts have been effective against experimental infection when applied topically. Medicated gels have been applied in vinyl mouthpieces designed to fit the gingivae and teeth of hamsters.

A progressively lighted chart explains how the pathologist studying periodontal tissue changes can make an accurate evaluation in the interdental papilla without sectioning and staining every particle of tissue in the specimen. By way of contrast, periodontal profiles demonstrate the folly of a random selection of histologic slides to represent the total picture of a jaw block.

NIDR's collagen studies are a focal point for the protein chemist investigating periodontal tissue. Collagen fibers, one of the most important components of the periodontal membrane, affix the tooth to bone. The loss of these fibers is largely responsible for the loosening of the teeth.

Under the large plastic bubble a model of the collagen molecule shows the rope-like structure formed by its three polypeptide chains wound around each other. Another model of the collagen fiber shows the molecules packed closely together in a staggered fashion. Covalent bonds crosslink adjacent molecules and strengthen the fibers.

Crosslinking Significant

The significance of these crosslinks has been shown by studies on lathyrism, a toxic condition produced by aminopropionitrile. It produces an interference with the crosslinking mechanisms, resulting in connective tissue disorders.

Histochemical research seeks to define the general chemical structure of tissues, the normal metabolic parameters of various cell types within the periodontium, and the way in which both of these vary with disease.

The staining technics utilized at NIDR in the search for the special role of enzymes in periodontal cells and the specific structural components of the periodontium are displayed in the exhibit. The recent development of a rapid demineralization procedure which conserves enzymatic activity has made possible a number of significant studies. A new fiber named *oxytalan* as well as certain complex relationships among enzymatic processes have been revealed.

Epidemiology explores the ways in which disease patterns in a population are affected by geography, climate, and way of life. Epidemiologic research has shown an invariable association between periodontal disease on the one hand, and increasing age and poor oral cleanliness on the other.

A few population studies have also revealed some beneficial relationship between consumption of fluoridated water and periodontal tissue health.

While there are great discrepancies in the prevalence and severity of periodontal disease in the world, NIDR surveys have shown no relation between the disease and vitamin deficiencies, race or sex.

Dr. Bernier Is Appointed To New NLM Position

The appointment of Dr. Charles L. Bernier to the newly established position of Science Communication Specialist in the National Library of Medicine was announced recently by Dr. Martin M. Cummings, NLM Director.

Dr. Bernier

Dr. Bernier, former Head of the Scientific Information Centers Program and Acting Chief of the Technical Communications Branch, National Institute of Child Health and Human Development, will be responsible for analyzing NLM programs in all areas of its operation.

In addition, he will provide the Director with technical advice and assistance together with recommendations for improving methods of handling biomedical literature.

To further its objectives as the national center for the communication of biomedical knowledge, the library earlier this year put into operation its new Medical Literature Analysis and Retrieval System (MEDLARS), an electronic complex consisting of an advanced digital computer and special high-speed composing equipment.

It has already been used to produce the August and September issues of Index Medicus, NLM's monthly listing of the world's medical literature.

Dr. Bernier will concentrate on the technical evaluation of MEDLARS and on devising and developing applications of new technology designed to facilitate the collection, evaluation, storage, and dissemination of scientific information.

NIH SIGNS

(Continued from Page 1)

trative Assistant, CC.

Also Stanley Oliver, Assistant Chief, Plant Engineering Branch, DRS; Kenneth Painter, Administrative Officer, NCI; Robert Cohen, NLM; George P. Morse, Chief, Plant Safety Branch, OD; and C. Robert Chambliss, Assistant Chief, PSB.

According to Mr. Morse, the most important criterion in judging a sign is whether it will "create an impact that will cause the reader to comply with a regulation or supply him quickly with accurate information."

He said "the main objective of the committee is to develop a group

The meaning of the sign headed "15-K" is no doubt unclear to NIH visitors. The one-way sign serves to further confuse motorists.

of relatively few signs which will facilitate the control of public and employee traffic and parking. We do not want an ugly forest of signs."

Last year there were over 500 outdoor signs at NIH until a preliminary study indicated that many of these were unnecessary and could be easily eliminated. At present, less than 300 signs are standing. Mr. Morse feels that even fewer could do the same or a better job.

To provide the sign evaluation committee with a report of the present situation, Mr. Chambliss toured the NIH grounds, taking notes and snapshots of representative signs. Some of these clearly illustrate the need for revision.

Variety of Signs

"We now have signs of many shapes and sizes, of different materials and in a wide variety of colors and design," Mr. Chambliss said. "In some places so many signs are clustered together they actually confuse rather than help. If a sign requires a motorist to stop his car to read it, then it only defeats its purpose of speeding traffic flow."

An important factor in developing an effective set of signs is uniformity of color and design. At the Bethesda Naval Medical Center, for example, most traffic and building signs are blue with gold lettering.

Such uniformity creates familiarity, draws attention, and commands compliance. Furthermore, signs of a type—speed limit, slow, stop, parking, building—should be of a distinctive shape so that they may be recognized at a distance.

In addition to the improvement and replacement of existing signs, the committee will also consider the construction of master outdoor directory boards which will include a map of the reservation and directions to major locations.

Pull-Over Areas Proposed

A proposal to construct pull-over areas for motorists to read the directories will be studied. Another suggestion is to install telephones in the pull-over areas with a direct line to a central traffic information center which would quickly provide the visitor with the precise information needed.

Other items to be considered will be the replacement of the entrance markers on Wisconsin Avenue and Old Georgetown Road, renaming NIH streets, and developing a policy for review and approval of future sign requests.

Other NIH signs, such as this one at Wilson Lane and Center Drive are in need of paint or other maintenance. The sign committee will include a study of durability of sign construction materials in their evaluation.

Final Meetings of '64 Series Scheduled By 10 Advisory Councils, Nov. 5-Dec. 12

All National Advisory Councils—10 altogether, one for each Institute and one Division—will hold their final meetings of the 1964 series at NIH beginning next Thursday, November 5, and continuing through Saturday, December 12.

Eight of the Advisory Councils will meet at Stone House. Of these, seven will hold 3-day meetings, while the National Advisory Health Research Facilities Council will convene for two days only.

Two councils—the National Advisory Cancer Council and the National Advisory Child Health and Human Development Council—will hold their 3-day sessions in Conference Room 4 in Building 31.

These Advisory Councils, composed of outstanding scientists, educators and leaders in public affairs, review grant applications for NIH research support and advise and make recommendations on extramural programs to the Surgeon General.

Dates of each meeting and new appointees to those councils appointing new members are:

National Advisory Heart Council, November 5-7, Stone House.

National Advisory Allergy and Infectious Diseases Council, November 12-14, Stone House.

National Advisory Cancer Council, November 16-18, Conference Room 4, Building 31.

National Advisory Mental Health Council, November 16-18, Stone House.

Other Meeting Dates

National Advisory Arthritis and Metabolic Diseases Council, November 19-21, Stone House.

National Advisory Neurological Diseases and Blindness Council, November 19-21, Stone House.

National Advisory Child Health and Human Development Council, November 30-December 2, Conference Room 4, Building 31.

National Advisory Dental Council, December 3-5, Stone House—Dr. Reidar F. Sognnaes, Dean of Dentistry and Professor of Oral Biology and Anatomy in the Center for the Health Sciences, University of California, Los Angeles (4-year term, ending September 30, 1968).

National Advisory Health Research Facilities Council, December 4-5, Stone House—Dr. Maurice J. Hickey, Dean, University of Washington School of Dentistry, Seattle; and Mrs. Edward J. Fitzgerald, Needham, Mass. (4-year terms, ending June 30, 1968).

Appointees Listed

National Advisory General Medical Sciences Council, December 10-12, Stone House—Dr. Theodore H. Bullock, Professor of Zoology, University of California, Los Angeles; Dr. Oliver H. Lowry, Head, Department of Pharmacology, Washington University School of Medicine, St. Louis; and Dr. Geraldine P. Woods, public affairs and social service leader, Los Angeles (4-year terms, ending September 30, 1968).

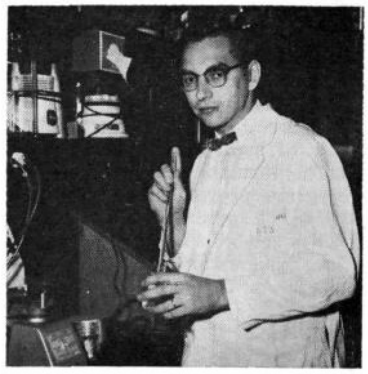
In addition to these 10 council meetings, the National Advisory Research Resources Committee of the Division of Research Facilities and Resources, which functions like a council, will hold a 2-day meeting on November 30-December 1 at Stone House.

Appointed to this committee was Dr. Wilson S. Stone, Vice President for Graduate Research in Education, University of Texas, Austin (4-year term, ending September 30, 1968).

Robert Schimke Named Young Scientist of Year By Maryland Academy

Dr. Robert T. Schimke of the National Institute of Arthritis and Metabolic Diseases' Laboratory of Biochemical Pharmacology has been named "Outstanding Young Scientist of the Year" by the Maryland Academy of Sciences.

Dr. Schimke, selected from 29 prominent nominees by a panel of senior scientists for his research that has led to a better understanding of the life-controlling changes in cells, received a $500 award and a bronze plaque, Saturday, October 17, at a banquet given by the Academy.



Dr. Robert T. Schimke at work in his laboratory in Building 4.—Photo by Bob Campbell.

By experiments described as "brilliantly designed and painstakingly executed" by Dr. Herbert Tabor, Chief, Laboratory of Biochemical Pharmacology, who nominated the young scientist for the award, Dr. Schimke has shown how the levels of enzymes are controlled in the organs of animals and in tissue cultures.

He established, for the first time, the separate roles of an increased rate of cell building and a decreased rate of cell destruction as separate mechanisms operating to change the level of enzymes in mammals.

Previous Research Noted

Previous research has shown that there is a continual breakdown and rebuilding of proteins during the life of a cell. Dr. Schimke's work shows that both of these processes are regulated in the case of enzyme proteins.

He was the first to show that the levels of the entire series of mammalian enzymes involved in a single metabolic pathway vary in a similar fashion. It is as if a single "operator" turned a whole set of related enzymes on or off together or adjusted the levels of all in a single operation.

Dr. Schimke was born in Spokane, Wash., and received his B.A. and M.D. degrees from Stanford University.

Dr. Stroud Is Appointed Chief of DRFR Section On Scientific Review

Dr. Robert C. Stroud has joined the staff of the Division of Research Facilities and Resources as Chief of the Scientific Review Section of the Health Research Facilities Branch.

Dr. Stroud

In his new position, Dr. Stroud will supervise a staff of scientist administrators responsible for the scientific review and analysis of applications requesting funds for construction of facilities for health-related research.

The health research facilities program provides matching funds up to 50 percent of the cost of health-related research construction, renovation and equipment, and up to 75 percent in matching funds for facilities for mental retardation.

In the eight years since inception of the program 1,227 grants totaling almost $310 million have been awarded.

Formerly With NASA

Dr. Stroud came to the Division from the National Aeronautics and Space Administration, Ames Research Center, Calif., where he was Chief of Program Management for Life Sciences since 1962. While in this assignment he lectured at Stanford University and chaired a course there on the relation of life sciences to the space program.

Prior to that he had served with the Public Health Service's Occupational Health Research and Training Facility in Cincinnati, as Assistant Chief of the Physiology Section.

Dr. Stroud also served as an instructor in physiology at the University of Pennsylvania Medical School, Philadelphia; Associate in Medical Physiology at Brookhaven National Laboratory, Upton, N.Y.; Assistant Professor of Pharmacology at Ohio State University Medical School, Columbus; and Assistant Professor of Physiology at the Medical College of South Carolina.

Serves With Navy, PHS

In 1956, he accepted an appointment as Assistant Chief of the Physiology Branch and Chief of the Radioisotope Section with the U.S. Navy at the Navy Submarine Base, New London, Conn. In 1961 he transferred to the PHS.

A native of Oakland, Calif., Dr. Stroud received his B.A. from Princeton University, and his M.S. and Ph.D. on a scholarship and fellowship from the University of Rochester, N.Y., in the field of medical physiology.

NIMH Reports on Adolescents' Use of Psychiatric Outpatient Clinics in 1962

Data from 788 psychiatric outpatient clinics has revealed that admission, interviews, diagnosis and referral services outweigh treatment by a ratio of two to one.

Of 53,000 adolescents served in psychiatric outpatient clinics in 1962, two-thirds received no treatment, according to findings of a study conducted by the National Institute of Mental Health in cooperation with 41 State mental health authorities.

Instead, services for these patients were mainly for admission, interviews, diagnosis, and evaluation for other agencies. The median number of interviews for each patient was four.

Three-fifths of the total number served were reported to have personality or psychoneurotic disorders and 16 percent were diagnosed as having more severe disorders, including psychoses, mental retardation, or chronic or acute brain syndromes.

Overall, three percent of the adolescents were diagnosed as without mental disorders. A total of 20 percent was reported as undiagnosed.

A previous study indicated that one-fourth of all outpatients ranged in age from 10 to 19 years. The new data showed that of this group the largest proportion was 14 to 15 years old, and the smallest number 18 to 19 years of age. This may reflect increased anxiety among parents in their ability to cope with children as they reach mid-adolescence.

Higher Ratio of Boys

Among the younger clinic patients, the sex ratio was 2.6 boys to one girl, with the ratio of variance decreasing among the older adolescents.

The consistently higher ratio of boys in clinic treatment in mid-adolescence corresponds with their relatively high rate of appearance before other "trouble-handling" agencies. The data supports the experience of clinicians in dealing with adolescents.

Boys tend to express their inter- and intra-personal conflict in sullen moods and acts of defiance, while girls are often referred because they are more listless, depressed, or inadequate in adolescent social situations. Girls were held as more readily able to accept help.

Schools were the predominant referral agents for adolescents in the 10-to-15 year age range, with the courts a frequent source of reference, particularly for boys, in the 14-to-17 year range.

School Referrals Important

Implications were that the schools should continue as active case-finding agencies and that public health nurses are increasingly aware of the mental health problems of school-age children.

In determining the disposition of the outpatient cases, the study indicated that approximately one-third of the adolescents withdrew from the clinics; one-third were terminated by the clinic without referral elsewhere; and the remaining one-third were referred to another community agency.

The study, reported at the meeting of the American Public Health Association, was prepared by Beatrice Rosen, Dr. Anita K. Bahn, Dr. Robert Shellow, and Dr. Eli M. Bower, all of NIMH.

NOBEL PRIZE

(Continued from Page 1)

National Heart Institute, titled "Biosynthesis and Function of Lipids." It is reported that the Nobel Prize award to Prof. Bloch was based mainly on his accomplishments with this grant.

Cholesterol, which has become a household word within the past few years, has been called the chief suspect by medical scientists in causing hardening of the arteries, which can lead to heart attacks and strokes.

In making the award the Nobel committee hailed the impact of the winners' research work on circulatory diseases, which "are the foremost cause of death in many areas of the world." The battle against these diseases will rest upon the work of these two men, the committee said.

Early Research Described

Prof. Bloch and his associates early showed that the simple chemical material, acetic acid, is an effective precursor of cholesterol in the rat.

Later, they demonstrated where each of the 27 carbon atoms in the cholesterol came from: i.e., from the carbon in acetate to the carbon in an intermediate material called squalene. They showed how this intermediate material is folded in a specific manner to form the chemical rings characteristic of the sterols in general and cholesterol in particular.

Prof. Bloch says that he plans to continue his attempts to clarify the processes by which the substances such as cholesterol are produced by animal cells from precursors such as acetic acid.

Born in Germany, Prof. Bloch came to the United States in 1936 and became a naturalized U.S. citizen. He has been a professor of biochemistry at Harvard since 1954.

NIDR Booklet Describes Programs in Research

Progress in research on dental caries, periodontal disease, calcification, congenital anomalies and oral ulcerations is described in a new booklet, "NIDR Reports on Dental Research," recently released by the Public Health Service.

In the reports on basic and applied research supported and conducted by the National Institute of Dental Research, there are included an account of enzyme mechanisms in scurvy, a description of an organism which produces periodontal disease in hamsters, an electron microscope study of developing tooth enamel and a report of the relationships of frequency of eating to tooth decay.

Grant Allotment Substantial

The Dental Institute has an annual budget of approximately $20 million more than three-fourths of which is expended for grants to support dental research and train dental researchers.

"The oral diseases and deformities which plague mankind will, we expect, yield ultimately to research efforts," said Dr. Francis A. Arnold, Jr., NIDR Director, in the preface of the 32-page booklet.

Part II of the brochure describes briefly 28 examples of basic and clinical research reported within the past two years. Of the total, 10 represent research reported by grant-supported investigators in nine research institutions in various parts of the United States and 18 are research reports by NIDR scientists.

Single copies of the booklet, PHS Publication No. 1244, are available from the Information Office, NIDR, Bethesda, Md. 20014.

Dr. Robert A. Aldrich, first Director of the National Institute of Child Health and Human Development (right), accepts congratulations of Wilbur J. Cohen, Assistant Secretary for Legislation, DHEW, on receiving the DHEW Secretary's Special Citation "for superior leadership in developing the health research program" of the Institute. Looking on is Dr. Aldrich's wife, Marjorie. Dr. Aldrich returned to the University of Washington Medical School (Seattle) Nov. 1 as Professor of Pediatrics.—DHEW Photo.

CENTERS

(Continued from Page 1)

of Child Health and Human Development and the Division of Research Facilities and Resources.

Last year, with Congressional authorization for a nation-wide attack on mental retardation, including the construction of research centers, NICHD was given primary responsibility for helping institutions plan and develop research and training programs. This past year the Institute has provided almost $5.5 million for the support of mental retardation research and research training.

Extensive Planning Involved

The Division of Research Facilities and Resources, which administers PHS research construction grants, has worked with the two universities and NICHD in planning mental retardation facilities best suited to the research and training programs to be conducted in them.

The center at Albert Einstein will be a 10-story building adjacent to the Jacobi Hospital of the Bronx Municipal Hospital Center. The research program will emphasize biomedical, psychological and environmental aspects of mental retardation and other problems of growth and development.

Research in developmental biology will cover a broad spectrum from molecular and enzymatic levels to the whole organism, relationships between mother and child and between the family and society.

Certain studies such as those in prematurity already going on will be continued, in some cases expanded, and other studies will be initiated in several biomedical disciplines including biochemistry, endocrinology, neuropharmacology, physiology, pathology, electrophysiology, and epidemiology.

Related Studies Scheduled

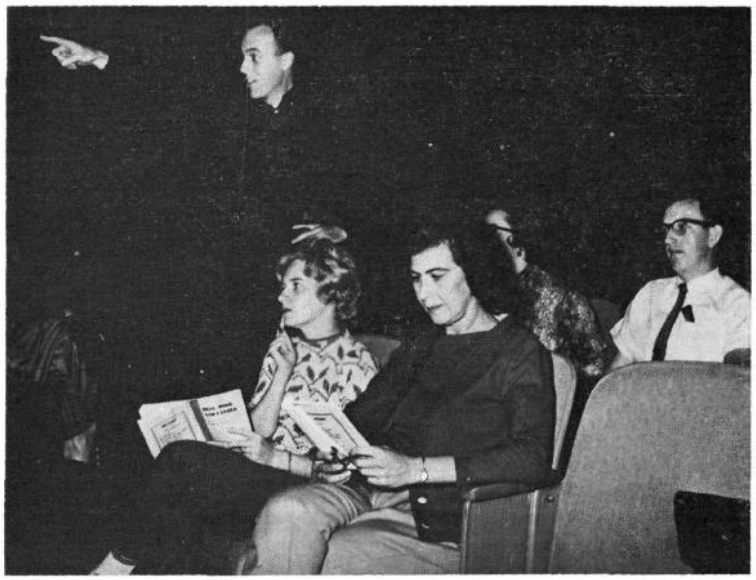
Additional studies related to mental retardation will be conducted in the behavioral, social, and educational sciences.

The grant to the medical school at the University of Washington provides for the construction of three new buildings and remodeling some space in the Health Sciences Building.

In this building complex, there will be a multidisciplinary diagnostic clinic, an experimental school, and a short-term residential unit for clinical and educational research, and for professional training.

Research to be conducted in the center will include studies in biological and medical sciences, behavioral sciences, clinical research, and educational research.

The NIH Pacific office was established in Tokyo, Japan, January 1, 1963.



Director Kyran McGrath instructs the "Bell, Book and Candle" players on stage as Ann Meadows, producer-assistant director (seated, left), intently studies action. Next to her, Dottie Mathis who plays Aunt Queenie studies her script. In the second row Joyce Richards, wardrobe mistress, and Don Hamilton, master property man, watch the performance.

Between-Acts Vignettes To Enliven Hamsters' Production Next Week

"Before the evening is over you'll be suspecting your best friends." This is what one reviewer said of "Bell, Book and Candle," the lively comedy about an entirely believable family of modern witches. The play is the R&W Hamsters' fall production to be presented in the Clinical Center auditorium November 12, 13, 14 and 15.

Time-honored notions about witches being fiendish hideous creatures with broomsticks, black cats, and pumpkins were discarded by John van Druten when he wrote the play. Times have changed since medieval days, he reasoned, and so should have witches.

Unusual Witchcraft Practiced

Gillian Holroyd, the leading sorceress in the play, is young and alluring and lives in a well-kept East Side apartment. Her cat, Pyewacket, is not diabolical but a cheerful Siamese. Gillian's brother Nicky instead of tormenting enemies by incantations, gives them sleepless nights by causing their phones to ring mysteriously at all hours.

In its original production the play had just five characters. But to add variety and to help create moods and scenes, Kyran McGrath, Director of the Hamster production, has added several short vignettes before the main acts.

A supporting cast has been recruited to perform in the vignettes. This group includes Brinson Conerly, NIMH; Delray Green, CC; Mary-Ann Gruber, CC; Don Hamilton, CC; Elaine Hollis, OD; Anne McGeehan, CC; Joe Scotto, NCI; Teresa Coyne, NIDR; Jim Hite; Al Cohen; Jeanette Duvall; and Joyce Richards.

Tickets for "Bell, Book and Candle" are now available at the R&W office, Rm. 1A18, Bldg. 31; at noon in front of the cafeterias in Buildings 31, 10, and 1; and at various other NIH locations.

Gebhard Gsell Receives Photomicrography Prize

Gebhard Gsell, a medical technologist in histology in the Pathological Technology Section of the National Cancer Institute's Laboratory of Pathology, recently received an award for photomicrography in the annual competition of the Biological Photographic Association.

His award was for two monochrome prints of aspergillosis (fungus infection), made as part of research by Dr. Seymour Sabesin, formerly of the Surgical Pathology and Post Mortem Service in the Pathologic Anatomy Branch, and Dr. Louis B. Thomas, Head of the Service.

One of the prints appeared in the September 9 issue of Medical Tribune as part of a picture story on the contest.

Last year Mr. Gsell received an award from the association for a photomicrograph color transparency, neoplastic cells in tissue fluid. Last November he received a cash award from NCI for sustained superior work performance.

NIMH Manpower Report Presents New Data on Practicing Psychiatrists

A total of 16,863 psychiatrists are in active practice in the United States, representing a new high in this medical specialty, according to a tabulation by the American Psychiatric Association and the National Institute of Mental Health.

The number of all licensed physicians in the country is 267,950, of whom approximately 6.3 percent are psychiatrists.

In announcing the broadest count of psychiatrists yet made, manpower authorities of the Public Health Service pointed out that previous estimates had been based mainly on membership in the American Psychiatric Association.

Other Data Included

This new count also includes data on other psychiatrists, obtained from the American Medical Association and from an NIMH survey of mental health establishments.

New York State has attracted the largest number of psychiatrists, where 22 percent of the total (3,690) are in active practice. California is second in the number of psychiatrists with 2,100 reported.

In several Western states relatively few psychiatrists are engaged in active practice. Listings show Wyoming, 12; Idaho, 14; Nevada, 15; and Montana, 17. Alaska, with nine, has the smallest number.

In 1948, when Federal support of psychiatrist training was first made available, the total membership of the APA was 4,678. Data on other psychiatrists were not then available.

Membership Increases

Today the membership in the professional organization numbers approximately 14,000. It is estimated that of all the medical students enrolled today, 9.4 percent of them enter psychiatric residency training.

Approximately 2,000 training stipends in the specialty were awarded through Federal financial support this year, and other factors were cited by the PHS as contributors to the growth in the number of psychiatrists in the Nation.

These include increased State support of residency programs, and increased professional opportunites for psychiatrists in the expanding national mental health program.

The findings were reported in Mental Health Manpower Current Statistical and Activities Report, October 1964, prepared by the Mental Health Manpower Studies Unit, Training and Manpower Resources Branch, NIMH.

Progress Reported in Treating Disorders of Kidney and Cholera

Two National Heart Institute physicians reported medical progress in kidney disorders and cholera at the recent scientific sessions of the 71st annual meeting of the Association of Military Surgeons of the United States at the Sheraton-Park Hotel in Washington.

Dr. Myron Lotz of the Clinical Endocrinology Branch discussed how some of the newer man-made penicillins may help prevent kidney stones in victims of an inherited kidney disorder called cystinuria.

Reports on Cholera

In another area, Dr. Robert S. Gordon, Jr., of the Laboratory of Metabolism, reported on better management of cholera using the simplest of equipment.

Dr. Lotz discussed results of limited but promising trials of the drug d-penicillamine, used on seven patients over 16 months.

He noted that none of the patients developed kidney stones and that side effects were minimal, and predicted "a greatly improved outlook" for drug treatment of persons afflicted with this disorder.

In discussing the status of cholera treatment, Dr. Gordon pointed out that economic and social problems are now limiting factors in bringing aid to people of "cholera countries."

Cutting treatment costs and promoting social progress in underdeveloped nations is vital if this once dread disease is to be conquered, he said.

Fluid Replacement Important

With adequate fluid replacement therapy doctors could save almost every cholera victim, Dr. Gordon noted. Existing scientific knowledge makes it possible, he said, to formulate therapy which will virtually guarantee a cure for any person attacked by cholera.

By adding antibacterial drugs to the therapeutic regimen, Dr. Gordon observed, it's been possible to shorten the course of cholera and reduce the requirements for intravenous fluids, bed space and professional care.

He also stressed another important point—concerning military logistics—that it is much easier to transport the lighter-weight antibiotics than the heavier intravenous fluids.

In August 1935, Mr. and Mrs. Luke I. Wilson made the first gift of 45 acres of their estate for the use of NIH, thus determining its present location. Subsequent gifts by Mrs. Wilson in 1938, 1940, and 1942 brought the total donated from the Wilson estate to 92 acres.

Glad to be on the NIH "reservation," these graduates of the Indian School of Practical Nursing in Albuquerque, N. Mex., recently joined the CC Nursing Department. Their alma mater is operated by the Public Health Service to provide an opportunity for young Indian girls to obtain training in a useful occupation and to furnish hospitals with a group of workers with an understanding of the Indians. From left, they are: Millie Begay, Celestine Colhoff, Shirley James, and Linda Marie Scott of the Navajo, Chippewa/Sioux, Choctaw and Cherokee tribes, respectively.—Photo by Sam Silverman.

CAMPAIGN

(Continued from Page 1)

The percent of participation and the percent of quota attained as the campaign entered its final week follows:

	Employee Participation	Percent of Goal
DRG	100.0	124.1
NIGMS	100.0	123.7
DRFR	100.0	113.3
DRS	85.7	105.8
OAM	90.1	101.5
NICHD	79.8	100.0
OD-NIH	100.0	89.4
NIDR	94.7	87.9
NIMH	60.0	87.5
DBS	89.8	81.8
NIAMD	69.1	75.9
NIAID	71.2	73.5
NHI	73.9	72.2
NCI	65.4	67.4
NINDB	52.8	64.7
CC	86.0	60.0
Total	79.3	83.0

Dr. Knutti to Appear on Program Featuring NIH

Dr. Ralph E. Knutti, Director of the National Heart Institute, will be heard on radio station WMAL at 7:30 p.m. EST, Wednesday, November 11. The program, "SCRATCH ON THE SURFACE," is one of a series produced by the ABC network, featuring the work of the National Institutes of Health.

Others appearing on the program with Dr. Knutti will be Dr. William C. Hall and his associates at the Cardiovascular Research Center of Baylor University College of Medicine, and Dr. Julius Comroe of the University of California's San Francisco Medical Center. The program is narrated by well-known radio commentator Jimmy Wallington.

Study Indicates Antiviral Activity of Interferon Is Species Specific

Investigators of the National Institute of Allergy and Infectious Diseases have found a virtually complete species barrier between mouse and chicken interferons.

It has been reported that interferon may exert a substantial antiviral effect in the cells of diverse species. In contrast, investigators had observed that low potency mouse, chicken, or guinea pig interferons were completely species specific.

Because high-potency mouse interferon is now available and there is presently a technique for concentrating chicken interferon, they were able to test for possible low levels of cross protection on heterologous cells.

Antiviral Activity Assayed

Mouse and chicken interferons were assayed for antiviral activity on both mouse embryo and chicken embryo cell cultures.

No antiviral activity on heterologous cells was detected when as much as 3,000 units of mouse interferon and 2,000 units of chicken interferon were used.

The authors conclude that the "virtually complete species barrier between mouse and chicken interferons suggests that this striking property should be more generally applied for characterizing interferons."

These findings were reported by Dr. Samuel Baron, Dr. Stanley Barban, and Charles E. Buckler, of the Laboratory of the Biology of Viruses, NIAID, in Science.

List of Latest Arrivals Of Visiting Scientists

9/23—Dr. John C. Crawhall, Eng., Research in Clinical Investigations, Clinical Endocrinology Branch. Sponsor: Dr. Stanton Segal, NIAMD, Bldg. 10, Rm. 8N256.

9/30—Dr. Goran Frostell, Sweden, Research in the Laboratory of Microbiology, Gnotobiotics Section. Sponsor: Dr. Robert J. Fitzgerald, NIDR, Bldg. 30, Rm. 334.

10/1—Dr. David M. Greenberg, U.S.A., Research in the Laboratory of Clinical Biochemistry. Sponsor: Dr. Sidney Udenfriend, NHI, Bldg. 10, Rm. 7D20.

10/1—Dr. Richard L. C. Brimacombe, England, Research in the Laboratory of Clinical Biochemistry, Section on Biochemical Genetics. Sponsor: Dr. Marshall Nirenberg, NHI, Bldg. 10, Rm. 7D03.

NCI Research Biologist, Betty Achinstein, Dies

Betty Achinstein, 63, a research biologist with the National Cancer Institute, died of cancer October 21 at her home in Bethesda. She had been with the Institute's Laboratory of Chemical Pharmacology since 1954.

Born in Lithuania, Mrs. Achinstein was graduated cum laude from the Brooklyn, N.Y., College of Pharmacy in 1918. She also studied at Hunter College, New York, in 1925-26, and at George Washington University in 1953.

Mrs. Achinstein was co-author of 10 papers published in scientific journals between 1956 and 1963. Before joining NCI, she was a professional pharmacist for 15 years.

She is survived by her husband, Asher Achinstein, of the home address, 8504 Meadowlark Lane, Bethesda, Md., and a son, Peter, who is an associate professor of philosophy at Johns Hopkins University.

Julian Morris, who recently completed his one-year internship in the NIH Information Training Program, receives a graduation certificate from Clifford Johnson, Chief, and Jane Stafford, Assistant Chief, Office of Research Information. He is now a member of the ORI staff.—Photo by Bob Pumphrey.