Tangier Disease Offers Scientists Rare Opportunity

A new and rare familial disorder, characterized by enlarged, dead-colored tonsils and low blood cholesterol, is being studied by scientists from the National Institutes of Health with a unique opportunity to study previously inaccessible factors affecting the transport and storage of cholesterol in the human body.

Called Tangier disease because it was first discovered in two children on Tangier Island in Chesapeake Bay, the disease involves the accumulation of extremely large amounts of cholesterol esters in the tonsils and certain other tissues of the body.

Lipoproteins Absent

The most striking biochemical feature of Tangier disease is the complete absence from the serum of high-density lipoproteins, the large molecules normally comprising one of the two major classes of lipoprotein complexes that serve as carriers for all of the fats transported in blood. These lipoproteins have heretofore always been found in relatively stable amounts in blood in man and all animals, and their specific function is unknown. They (See TANGIER DISEASE, Page 4)

New Snow Emergency Plans Ready for Use This Winter

Emergency Plan No. 5 To Govern Dismissals


Policy Explained

The new policy statement follows:

The Director, NIH, has determined that the National Institutes of Health will follow the procedure of the Metropolitan Area for excluding employees from work because of hazardous weather. Therefore, when there is a public announcement that Snow Emergency Plan No. 5 is in effect, this announcement will apply to NIH employees.

Emergency Plan No. 5 states that 'most Federal and District Offices in the Washington area will remain closed today, and their employees excused from duty without charge to annual leave.' This announcement does not apply to those employees and those (See SNOW POLICY, Page 6)

Staggered Dismissals, Traffic Posts Planned

Two plans for expediting the flow of traffic from the reservation during snow emergencies are ready for use if needed this winter, according to announcements from the Personnel Management Branch and the Plant Safety Branch.

The PMB plan provides a staggered system for dismissal of employees by buildings listed within four zones. Notification of dismissal time, at 15-minute intervals, will be phoned to the various buildings according to zone, in the following priority order:

Dismissals by Zones

Zone I—Buildings 2, 4, 6, and 31.

Zone II—Clinical Center.

Zone III—Buildings 1, 3, 5, 7, 9, and 21.

Zone IV—All other buildings on the reservation.

Car pool members will be dismissed according to the zone of the drivers. The PSB plan is aimed at preventing traffic tie-ups and congestion from stalled cars. It establishes six mobile radio observation units, manned by members of the NIH Fire Department, at strategic points throughout the reservation. From these vantage points the (See SNOW PLANS, Page 6)

D.C. Transit Announces Slight Change in NIH Bus Route

D.C. Transit has announced a slight change in the route of the morning and evening rush-hour bus between Silver Spring and NIH via Bethesda, to become effective on Monday, January 29.

Beginning that morning, the present bus stop at the intersection of Coleville Road and 15th Street, now serving as a transfer point for D.C. passengers using the 14th Street bus, will be abandoned. The new transfer point, at which the 14th Street bus will then make connection, will be the designated stop on East-West Highway at the entrance to the Summit Hills apartments, a short distance west of Memorial Road.

As a result of this change, the NIH bus will enter East-West Highway at the Coleville Road intersection, one block east of 15th Street.

Contrary to expectations, D.C. Transit reports that more passengers are using the evening bus from NIH (about 28) than the morning bus from Silver Spring (12 to 15 passengers). To cover the cost of operation, the route needs an average of about 30 passengers on each trip, according to the transit company.

The NIH Plant Safety Branch points out that the bus service was authorized in December 19, on a 90-day trial basis, and urges all employees who can use it to advantage to do so.

The morning bus leaves the Silver Spring terminal at 7:55, arrives at the Woodmont Triangle, Bethesda, at 8:15, and at NIH at 8:20.

The evening bus leaves NIH from the Memorial Road stop, just east of Building 4, at 5:10, arrives at the Woodmont Triangle at 5:15, and at the Silver Spring terminal at 5:35. It picks up and discharges passengers at all designated bus stops en route.

Dubos to Lecture On Psychiatry of 19th Century

Dr. Rene J. Dubos, noted microbiologist and medical historian, will be the guest speaker at the Washington Society for the History of Medicine's January meeting Thursday (Jan. 18) at 8 p.m. in the Clinical Center auditorium.

The public is invited to attend.

Dr. Dubos is a Member and Professor of Experimental Pathology at the Rockefeller Institute in New York City. He is also a member of the History of Medicine Study Section, NIH, and a former Advisory Council member at NIMH.

Dr. Dubos' topic Thursday will be "French Psychiatry in the 19th Century and Gericiault's Portraits of the Insane." His lecture will include special references to post-impressionist painters of the period such as van Gogh and physicians Gericiault and Charcot who were interested in these painters.

The lecture will be illustrated with colored slides.

Native of France

Born in France in 1901, Dr. Dubos received his M.D. from the Instituto Nacional de Medicina in Paris in 1921. He came to the United States in 1924 and received his Ph.D. in Soil Microbiology at Rutgers University under Dr. Selman Waksman, discoverer of streptomycin, in 1927.

He became a Fellow of the Rockefeller Institute the same year and served that Institute subsequently as Assistant (1927-30), Associate (1930-33), and Associate Member (1936-41). He became George Fabyan Professor of Comparative Pathology at Harvard in 1942 but returned to Rockefeller as a Member in 1944.

While at Rockefeller Institute he discovered tyrothricin and (See DR. DUBOS, Page 4)
NIH Guard Force Dispenses Service, Safety, and Security

By Mary-Helen Emmons

Service, Safety, and Security might well be the watchwords of the NIH Guard Force, for these three essentials are freely dispensed around-the-clock by the men who make up the Guard Section of the Plant Safety Branch.

If a scientist is working on a laboratory project that requires hourly readings, a call to the Guard Section will insure him a good night's sleep, for he knows that his experiment will be carefully checked by one of the night-duty guards and that in the morning he will receive a report on its progress.

Another scientist may be expecting an after-hours shipment of perishable serum. When he arrives at his laboratory in the morning, the serum will be safely refrigerated, thanks to the guard who accepted it late at night.

A Bunsen burner left burning, a leaking chemical container, a burned-out light bulb in a stair well, a dead animal, a suspicious odor, a blocked partition-wall escape hatch—all these and many other hazards to safety or sanitation are action signals to the NIH guard as he makes his rounds throughout the reservation.

Familiar Sight

Of all the services that the ubiquitous guards perform, probably the one most familiar to NIH employees is that of directing rush-hour traffic. Every weekday morning and evening various key intersections on the reservation are manned by white-gloved guards who deftly direct the more than 4,000 cars that enter and leave the grounds at peak traffic hours.

This operation is not as simple as it looks, for the problem of keeping traffic moving through the grounds and onto the arterial highways in an even flow is one that calls for the utmost skill in coordination.

To master this difficult procedure the guards study and restate a Federal Bureau of Investigation training film depicting traffic patterns... (See GUARD FORCE, Page 6)

NIH Orchestra to Give Concert January 23

The NIH Orchestra will present its first concert of the 1961-62 season at 8:30 p.m. next Tuesday in the Clinical Center auditorium. The ensemble, now in its third season, consists of about 50 amateur musicians who are drawn from nearly every part of NIH.

Selections will include Beethoven's Coriolan Overture, Schubert's Unfinished Symphony and the Emperor Waltz of Johann Strauss.

Pianist Featured

Miriam Appleman Adelestein, wife of Dr. Robert Adelestein, NIH, will be featured in the Mozart Concerto in G major for piano and orchestra.

Mrs. Adelestein is a graduate of the Israeli Academy of Music and the Juilliard School, and is presently studying under Irwin Freundlich. She has had concert experience with the Israeli Radio Orchestra and has played at the International House in New York.

The NIH Orchestra has presented previous symphonic programs and a spirited rendition of Richard Bales' Military Suite at the annual awards ceremony here last June.

'Counseling Service

William L. Fournier, Educational Counselor, George Washington University, will again be available to counsel NIH employees on their immediate academic interests as well as their long-term educational plans and programs.

John Ronn, who will be in Room 231, Bethesda-Chesapeake High School, Bethesda.

The course, sponsored by the Adult Education Program of the Montgomery County School System, offers idiomatic English as opposed to the rigid grammatical text. It stresses conversation and pronunciation, and a review of the grammar necessary for English as it is spoken and spelled in the United States.

The registration fee for the course is $10 a semester. Classes will be held at B-CC Tuesday and Thursday evenings from 7:30 to 9:30 p.m. The textbook used in the course is Mastering American English, by Grant Taylor.

During the semester just completed, a majority of the class consisted of NIH staff members.

PFI: The Barefoot Contessa Is Second R&W Movie

"The Barefoot Contessa," starring Humphrey Bogart, Ava Gardner, and Edmund O'Brien, will be the second in the series of free movies presented here by the Recreation and Welfare Association of NIH.

Screenings are scheduled for Saturday and Sunday, January 27 and 28, at 8 p.m. in the Clinical Center auditorium.

Employees, guests, and patients are invited to attend.
NIAMD Study Suggests Molecular Orientation, Photosynthesis Relation

NIAMD scientists studying energy transfer mechanisms and allied metabolic steps have demonstrated the marked orientation of a species of chlorophyll molecules within a chloroplast (plant intracellular bodies containing the major photosynthetic pigment, chlorophyll). This finding, obtained by examining microscopically the fluorescence emission of chloroplasts may shed light on the essential process of photosynthesis—how light energy is trapped and converted to chemical energy needed for the synthesis of sugar and other substances.

Radiation Is Polarized

The investigators, Drs. Rodney A. Olsen and William H. Jennings of NIAMD's Laboratory of Physiology, and Warren L. Butler of the Department of Agriculture, found that the fluorescent infrared energy is trapped and converted to chemical energy needed for the transition from a physical mechanism to a chemical one. This means that for one species of chlorophyll, nearly all the molecules are aligned in the same direction, and seem ideally situated to serve as the active centers of photosynthetic activity. Other species of chlorophyll do not show this emission and appear not to be oriented.

This finding, reported in Biochemistry and Biophysics, suggests that the oriented form of chlorophyll may be involved in the transition from a physical mechanism of energy transfer to a chemical one. It is also believed to lead to a better interpretation of such mechanisms in all living cells.

Dr. Lazarow Appointed To NIAMD Council

Dr. Arnold Lazarow, Professor and Head of the Department of Anatomy at the University of Minnesota, has been appointed to serve on the National Advisory Arthritis and Metabolic Diseases Council. His appointment, announced by Dr. Luther E. Terry, PHS Surgeon General, is effective through September 1965. As a member of the Council, Dr. Lazarow will advise and make recommendations to the Surgeon General and to the Director of the National Institute of Arthritis and Metabolic Diseases concerning the extramural activities of this Institute.

Dr. Lazarow, who is well known in the fields of endocrinology and anatomy, was Associate Professor of Anatomy at Western Reserve University from 1948-1954 and has held his present position at the University of Minnesota since 1954.

Infant Disorder Clues Sought In Pregnancy Blood Tests

Blood samples from more than 75,000 expectant mothers may provide the answer to how large a role virus infection plays in mental retardation, Mongolism, cerebral palsy and other neurological disorders with which infants sometimes are born.

In an unprecedented study, these blood samples are being tested for evidence of infection by scientists at the National Institute of Neurological Diseases and Blindness and the National Institute of Allergy and Infectious Diseases.

The study is part of an NINDB collaborative project in which 16 medical centers throughout the Nation will conduct periodic examinations and keep records on pregnant women and their babies over a period of at least 10 years. The project is an attempt to understand the processes of conception, pregnancy, labor, and delivery in relationship to the growth and development of the newborn child.

Other Information Collected

It is also conceived as a large-scale effort to collect information on many factors which might be related to disorders of infancy and childhood, and to provide this information before, rather than after, such disorders develop.

The blood-sampling phase of the project makes use of antigens—substances which stimulate a chemical defense mechanism in the blood—to test the patient's serum for evidence of exposure to certain viruses. If a patient has been exposed to infections, this will be indicated by a greater number of antibodies in the blood.

At each of the 15 collaborating medical centers, blood samples are obtained from the patients during pregnancy and are sent to NINDB for testing. The serum is stored at minus ten degrees Fahrenheit in two huge, walk-in freezers—1,380 square feet in total size—in NINDB's Serum Center.

Specific information concerning the patient's pregnancy is kept along with data concerning the sample of serum, both of which are readily available for checking and rechecking for many years.

To test the serum, NINDB's Section of Virology, under the direction of Dr. John L. Sever, and NIAMD's Laboratory of Infectious Diseases, will perform a battery of tests to determine the presence of specific antibodies. This will require the testing of a large sample of sera, and the efficiency of derivation of these antibodies will be determined through analysis of the sera.

NIMH Scientists Throw New Light on Thyroxine As Regulator of Energy

Research on protein synthesis by National Institute of Mental Health investigators has thrown new light on the role of thyroxine as a regulator of utilization of energy.

The thyroid gland and its hormonal secretions have long been known to affect growth and development. Deficiency of thyroid hormone leads to retarded growth in immature animals and mental retardation in man.

Recent theories of action of this hormone have emphasized the effects on the oxidation of foodstuffs, and the efficiency of deriving biologically useful energy from these oxidations.

Regulates Energy Utilization

Several considerations led Dr. Louis Sokoloff, of NIMH's Laboratory of Clinical Science, to suspect that the role of thyroid hormone was more involved in regulation of energy utilization than in generation of energy. Growth and development are processes that require energy and appear to be dependent on thyroxine. He therefore studied the effects of thyroxine on protein synthesis which is probably the major chemical process involved in growth and development.

The studies disclosed that thyroxine stimulates synthesis of protein in liver preparation obtained from both young and old adult rats. They also revealed that thyroxine had a similar effect on protein synthesis in immature brain, but in freshly weaned rats.

On the other hand, in adult brain in which protein synthesis is a much slower process than in the developing brain, the thyroxine does not seem to have any notable effect.

The findings were reported at the Third International Neurological Symposium.

DGMS Section Receives Group Superior Award

Members of the Grants Administration Section, Research Grants Branch, DGMS, received a group award for sustained superior performance at the DGMS quarterly business meeting for birthday celebrants, held recently in Bethesda.

Dr. Carl R. Brewer, Branch Chief, presented checks to the Section members. They are: Ethel Wells, Trudy Smith, Nancy Hall, Kathryn Warner, Donna McNish, Virginia Hitiz, Dorothy Davidson, Lucille Taft, Katherine Leibold, Audrey Hess, Virginia McKenzie, Fuller Ming, and Natalie Kerdock.
Simple System Accurately Evaluates Survival Rate in Laryngeal Cancer

Results of a test of a system for classifying laryngeal cancers based on the anatomical extent of the disease have been reported by a group of scientists headed by Dr. Robert R. Smith, Chief of National Cancer Institute's Surgery Branch. Uniform classification of cancers is basic to accurate evaluation of end results of treatment.

The report is one of a series on stage classification of various types of cancer contemplated by a joint committee studying this problem in the United States. Committee members are appointed by the American College of Surgeons, American College of Radiology, American College of Physicians, the American Cancer Society, and the National Cancer Institute.

Authors Named

Authors of the report are members of the Subcommittee on the Larynx. This group includes, in addition to Dr. Smith, Dr. Ralph M. Cawk of the Washington Hospital Center, William O. Russell of the University of Texas, M. D. Anderson Hospital and Tumor Institute; and the late Chancellor L. Jackson, formerly of Temple University. The report was published in a recent issue of Surgery, Gynecology and Obstetrics.

The classification system devised by the Subcommittee defines the extent of disease in terms of three components: size and position of primary tumor, presence or absence of metastatic tumor in regional lymph nodes, and presence or absence of distant metastasis. Anatomic limits of the larynx are defined and the organ is divided into regions and sites. Combination of the various components from the three regions allow over 30 groupings of cases. These may be recombined and simplified into four large groupings representing four stages of disease.

Seven Institutions Cooperate

Seven different institutions engaged in the study of laryngeal cancer cooperated with the Subcommittee by applying the staging method in a group of 600 patients. No difficulty was encountered in understanding or applying the method.

The proposed system showed clearly the relation between prognosis and the stage of disease at diagnosis. Patients classified as stage one had a 5-year survival rate of 90 percent. For stage two the rate was 70 percent; stage three, 40 percent; and stage four, 20 percent.

An unexpected result of the test was its revelation of the effectiveness of present day therapy. In the absence of lymph node metastasis, the 5-year survival rate, even for patients with extensive and bulky tumors was 60 percent.

The presence or absence of a clinically palpable cervical lymph node metastasis was crucial in prognosis. When present, the rate dropped to about 55 percent.

Radiation and surgery were used for stage one in all cases. In stage two, surgery was used in 75 percent of the cases; in stage three, in 50 percent; and in stage four, in 25 percent. Stage studies are not yet complete.

The proposed system showed that high-density lipoproteins may be essential to normal handling of cholesterol, possibly including an important role in its normal esterification with fatty acids.

When correlated with similar studies conducted elsewhere on the few recently discovered patients, the findings in Tangier disease suggest that high-density lipoproteins may be essential to normal handling of cholesterol, possibly including an important role in its normal esterification with fatty acids.

In following the fate of these tryptamine derivatives in the body, it was found that the first change took place in the liver. It was unexpectedly discovered that the liver, considered to be the most important organ in detoxifying foreign substances, transforms these tryptamine compounds by enzyme action into derivatives that are psychotomimetic or more active than the parent compound.

These metabolites, reaching the brain by the blood stream, produce psychological phenomena before they are detoxified by the liver and eliminated through the kidneys.

Another important observation was the striking difference in individual reaction to one of these derivatives, N,N-diethyltryptamine (DET), both in the symptoms and their intensity, when similar doses were given.

Suspecting that the rate of the enzymatic hydration was responsible for these individual differences, the researchers conducted tests that showed a direct relation between the intensity of reaction and the amount of the metabolite excreted in the urine.

As tryptamine, one of many amines normally occurring in the body, can serve as a substrate for hydroxylation to a metabolite, it is suggested that the reaction may play a role in the biochemical mechanism leading to mental changes.

These findings were reported by Dr. Stephen Szarz in the Federation Proceedings.
**Disorder Clues**

(Continued from Page 2)

fectious Diseases, under the direction of Dr. Robert J. Huebner, supervised the production of an extensive panel of more than 100 viral antigens.

Among these are 28 ECHO viruses, 30 Coxsackie viruses, 28 adenoviruses, nine myxoviruses, and three polio viruses. These range in severity from common cold viruses to those that cause paralysis and death. As new viruses appear among the patients at the collaborating institutions, antigen production must be developed.

Development of the antigens has required extensive work in bringing together specific viral materials, performing many complicated tests, developing new tests, and in many instances developing suitable conditions to grow the virus for antigen production.

**Institutions Named**

Collaborating institutions are Boston Lying-In Hospital and Children's Medical Center, both in Boston; Brown University and Associated Hospitals, Providence; Charity Hospital of Louisiana, New Orleans; Pennsylvania Hospital and Children's Hospital, both in Philadelphia; Columbia University and New York Medical College, New York City; Johns Hopkins University, Baltimore; Medical College of Virginia, Richmond; University of Minnesota, Minneapolis; University of Oregon Medical School, Portland; Yale University, New Haven; Children's Hospital, University of Buffalo School of Medicine, Buffalo; and University of Tennessee School of Medicine, Memphis.

In addition to these medical centers, blood samples also are being obtained from Cooperative Child Development Study at the Kaiser Foundation Hospital, Oakland, Calif.

**Junior Village Pneumonia Outbreak Linked to Newly Recognized Virus**

An outbreak of pneumonia in Junior Village, a facility for home­less children operated by the District of Columbia Department of Public Welfare, has provided mounting evidence linking a newly recognized virus with pneumonia in young children.

When National Institutes of Health scientists and physicians at Children's Hospital, Washington, D. C., reported last June that they had been able to isolate the virus from children and to associate it with respiratory illnesses, interest in this antigen in relation to children's diseases was stimulated.

Now the new virus has for the first time been found responsible for a severe outbreak of pneumonia in young children under long-term study. The agent is known as respiratory syncytial virus.

**Significant Role Cited**

Involvement of the respiratory syncytial virus in an outbreak of pneumonia affecting 36 to 90 children, ranging in age from eight months to about four years, from early May to June, is the subject of a recent report before the American Association for the Advancement of Science. The investigators also cite other reports on this study during the past year.

**Findings Listed**

Among the findings during the first three years of the study are:

- "At least 10 virus serotypes have been associated with illness in such a manner that their etiologic role is highly probable."

- Studies on the preventive value of new vaccines and penicillin have not been completed.

- Other reports on this study describe in more detail observations on specific microbial agents, their role as the cause of disease, the clinical nature of such disease, and the effectiveness of efforts directed toward disease control.

The reports include the description of a previously unrecognized adeno­virus, as well as ECHO viruses, myxoviruses and parainfluenza viruses. A number of bacterial agents were also associated with respiratory disease.

**Junior Village, Page 8**

Dr. Lloyd Named Dental Chief Of PHS

Dr. Ralph S. Lloyd, Chief of the Dental Department of the Clinical Center since 1953, has been appointed Chief Dental Officer of the Public Health Service by Surgeon General Luther L. Terry. Dr. Lloyd succeeds Dr. John W. Knautson who retired from active duty October 1, 1961.

Dr. Lloyd is a member of the Commissioned Corps of the Public Health Service since June 27, 1936. A native of Niles, Ohio, he is a graduate of the University of Cincinnati, Ohio, and has done graduate work in the Mayo Clinic, Rochester, Minn.

**Commissioned in 1936**

Dr. Lloyd has served in the Public Health Service as District Dental Officer in Baltimore, and his professional career has included assignments to hospitals in Baltimore and Savannah, Ga., and Washington, D.C. He was assigned to sea duty in the Pacific Theater during 1943-44, and in 1949 was sent to Europe on a special assignment.

Dr. Lloyd is a member of the American Prosthodontic Society, the American Society of Clef­fate Rehabilitation, the American Academy of Operative Prosthetics, the American Dental Association, and the American Association for the Advancement of Science. He is also a member of Omicron Kappa Epsilon Honorary Fraternity.

Dr. Lloyd is also a member of the Laboratory of Infectious Diseases, NIAID; Dr. Thomas M. Floyd of the National Naval Medical Center; and Dr. Francis M. Mastropa, formerly of the National Institutes of Health.
GUARD FORCE
(Continued from Page 1)
terns all over the United States. That they learn their lesson well is attested by the fact that the reservation can be virtually cleared within 15 minutes.

By Act of Congress, all members of the Guard Section are veterans of service in the Nation's Armed Forces. Head of the Guard Section, Capt. Jacob L. Craumer, who came to NIH in November 1955, is a veteran of 20 years in the Marine Corps with a final rank of sergeant major. His staff includes four lieutenants, nine sergeants, and 13 corporals in addition to first-class privates and privates.
The full force, presently incomplete, consists of 108 men, and this month 10 more are expected to be added to the Section to take over the security of the newly dedicated National Library of Medicine, located on the southeast corner of the NIH reservation.

Radio Room Impressive
The radio room of the Guard Section headquarters, located in the basement of the A-wing of Building 31, contains an impressive array of shortwave equipment and direct-line telephones.

One of the phones is connected with the NIH Fire Department, another to the Employee Health Service, and a third to the Commissioned Officers quarters. The guards also have two special phones for emergency use and one business phone.

The shortwave radios enable them to be in instant contact with other service units on the reservation, such as the NIH Fire Department and the Grounds Maintenance and Landscaping Section, and with the DHW emergency system and Civil Defense headquarters. In addition, all Montgomery County Police and Fire Department broadcasts are monitored for word of any emergency that might involve NIH property or personnel.

Aid in Fighting Fires
All of the members of the Guard Section are trained auxiliaries to the NIH Fire Department. They not only assist the firemen in fighting fires but aid in confining fires by clearing and scaling off areas of danger.

An adjunct to the fire-fighting equipment in the Clinical Center is a special cart located in Stairway 7, operated by the guards. This cart, containing extra hose and gas masks, can meet the firefighters at any place in the building if needed.

A listing of the many services provided by the Guard Section would be too voluminous to include here. They escort ambulances to Biochemical Abnormality in Hereditary Disease Discussed at Combined Clinical Staff Meeting

The Biochemical Abnormalities in Hereditary Diseases were discussed at a combined clinical staff meeting January 11 in the Clinical Center auditorium. Dr. Joseph J. Buvin, Clinical Director of the National Institute of Arthritis and Metabolic Diseases, moderated the discussion.

Five papers were presented by NIH personnel in the following diseases. Dr. Robert S. Krooth, formerly of the Laboratory of Cell Biology of the National Institute of Allergy and Infectious Diseases and presently with Strong Memorial Hospital, Rochester, N.Y., spoke on the Use of Human Cell Lines for Study of Genetic Diseases, a summary of the use of cell cultures in studying metabolic disorders.

Dr. Arnold Weinberg of NIAMD’s Laboratory of Biochemistry and Metabolism, presently at Massachusetts General Hospital, discussed the role of defective tissue cells in his study, Inability of Cell Lines Developed From Skin of Galactosemic Patients to Metabolize Galactose.

In his paper, Demonstration of Varying Levels of Catalase in Cell Lines From Skin of Normal Subjects, Heterozygotes, and Homozygotes for Acanthosis, Dr. R. Rodney Howell of NIAMD’s Arthritis and Rheumatism Branch pointed out that carriers of acanthosis exhibit partial defects because of their low level of catalase.

Dr. Bert N. La Du of NIAMD’s Arthritis and Rheumatism Branch, presented Phenylketonuria—Genetic Control of Synthesis and Regulation of Enzymes Concerned with Phenylalanine Metabolism, which described a modified method of measuring phenylalanine. Small amounts of blood obtained by pricking the finger or foot permit earlier diagnosis in babies, before the full-blown mental retardation as a result of the disorder.

Polygenic Etiology of Hyperuricemia in Primary Gout, presented by Dr. J. E. Seegmiller of NIAMD’s Arthritis and Rheumatism Branch, provided evidence that although primary gouty arthritis is generally regarded as a single clinical entity, there is a variety of underlying biochemical and physiological disorders that can give rise to the elevated serum urate level necessary for the development of clinical gouty arthritis.

Dr. La Du summarized the meeting, pointing out that scientists are now using new many new approaches to study hereditary diseases. He suggested that the biochemical basis of the hereditary disorders may be a missing enzyme or something more complicated, such as abnormalities of the factors which regulate the activity of enzymes. Even though a “cure” may not be possible, Dr. La Du stressed that corrective measures frequently allow patients with hereditary diseases to lead normal lives.

Howard Spence Named Chief of CC Section On Hospital Sanitation

Howard W. Spence, Sanitary Engineering Consultant for Nursing Homes, Division of Chronic Diseases, PHS, has been appointed Chief of the Hospital Sanitation Section of the Clinical Center. His appointment was effective January 1.

A Sanitary Engineer in the Commissioned Officer Corps, Mr. Spence has been associated with the Public Health Service since 1946. He has served as an engineer in the Division of Water Supply, as Assistant Executive Officer of the Communicable Disease Center, as an Area Sanitary Engineer in the Division of Indian Health, and as Assistant Chief of the Environmental Sanitation Branch.

During World War II, he served in India as a member of the Sanitary Corps, assigned to the Army Air Corps. A native of Kansas, Mr. Spence received a B.S. degree from the University of Illinois in 1940, and a M.P.H. degree from the University of Minnesota in 1950. He was also awarded a Certificate in Meteorology at the University of Chicago in 1945.

SNOW POLICY
(Continued from Page 1)

activities engaged in work which cannot be suspended without risk to the security of the United States, or danger to persons and property, or for other special public reasons. Such personnel have been previously designated by their Department or Agencies...

The Director, NIH, will determine the need for early dismissals due to hazardous weather conditions. Information concerning early dismissals will be released to the Institutes and Divisions through the Telephone Unit. All employees who can be released from duty by their supervisors without charge to leave.

Tardiness due to hazardous weather and/or transportation difficulties may be excused by supervisors without charge to leave.

Institute Directors and Division Chiefs are requested to designate personnel who are employed in activities that must continue regardless of the weather. These employees should be informed that they are expected to report for duty or to remain at work in spite of weather conditions so that there will be continuation of essential services without confusion.

“If an employee who has been designated to report for duty regardless of the weather is unable to report, his supervisor will determine, depending upon the circumstances, the type of leave charge to be made.”

SNOW PLANS
(Continued from Page 1)

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Dr. Price Devises Coffee "Drop Stop"; Stone House Hostesses Are Happy

Everyone fussed but no one did anything about the drippy spouts of the coffee urns at Stone House. No one, that is, until Dr. David Price, Deputy Director of NIH, devised an ingenious and effective gadget which has come to be known as the "drop stop."

The two urns at Stone House are mounted on hostess carts and provide coffee for members of the National Advisory Committees and Study Sections meeting there.

But each time a cup was filled from one of the urns, a few drops of coffee would cling to the spout, inter to drop on the floor, rugs, or even the hose and shoes of the conference assistants who serve as hostesses.

Dr. Price noticed the hostesses sidestepping the drops of hot coffee and announced he was "going to fix something to stop that."

The problem took two trips, the first two days, to be exact, and the solution was embodied in the two wooden gadgets made in his home workshop.

The device fits under the top shelf of the cart and extends below the sloping spout. A slot in its protruding end accommodates the handle of a cup-holder which is held securely in place by the insertion of a wooden peg which serves as a cotter pin. A paper cup placed in the holder catches the drops of coffee.

It works like a charm. The conference assistants at Stone House are happy again.

Conference Assistant Margaret Brown demonstrates simplicity of the coffee urn "drop stop." Wooden pin, inserted through holes, secures cup handle firmly. A slice catches dripped from spout. —Photo by Sam Silverman.

NIAD Supported Study Links Croup Syndrome To Parainfluenza Virus

Findings constituting the first evidence from controlled epidemiologic studies that parainfluenza 2 virus is etiologically related to the croup syndrome have been reported in Pediatrics.

The studies, supported by the National Institute of Allergy and Infectious Diseases, were conducted at Children’s Hospital, Washington, D. C., by Dr. Hyun Wha Kim, a U.S. Public Health Service Fellow. Investigators at the hospital, as well as from Georgetown University and NIAD’s Laboratory of Infectious Diseases, collaborated in this work.

Virus Found in Seven

During the 3-month period of the study, parainfluenza 2 virus was recovered from seven of 28 patients with croup. Serologic tests indicated that three other patients were infected with this agent.

In contrast, this virus was isolated from only three of 470 patients with respiratory illness other than croup or with no respiratory illness.

The parts played by parainfluenza 1 and 3 viruses in respiratory diseases of children have been emphasized in previous NIAD studies. Dr. Kim states that on the basis of the current study parainfluenza 2 is the cause of a place with parainfluenza 1 and 3 viruses as important agents in these diseases.

71 Percent Infected

He also notes that 71 percent of the patients with croup in this study were infected with one of the parainfluenza viruses.

This finding alone, the investigator states, “would probably warrant inclusion of the parainfluenza viruses in a vaccine intended for immune prophylaxis against respiratory tract infections in young children. Although there is accumulating evidence that reinfec tion with these viruses is possible, initial infection occurs early in life and is often accompanied by relatively severe infection of the lower respiratory tract. Thus the major value of such a vaccine would probably be the prevention of such syndromes as croup and viral bronchopneumonia in infants and young children.”

CCNSC Exhibit Wins Certificate of Merit

The American Veterinary Medical Association has awarded a certificate of merit to NIH for a scientific exhibit on inbred laboratory animals. The exhibit, prepared by the Carcin Chemotherapy National Service Center, was presented at the 98th Annual Meeting of the AVMA in Detroit.

The certificate was presented to Samuel M. Polley, Head of the Mammalian Genetics and Animal Production Section, Drug Evaluation Branch, NCI, by Dr. H. E. Kingman, Jr., Executive Secretary of the AVMA, who expressed appreciation to NCI for its contributions to the Association’s convention program.

The 6-panel exhibit describes the methods used to produce genetically uniform animal and genetic and biologic uniformity in tumors. It also explains the methods used to control the quality of both the tumor and the animal, and their eventual application in the drug evaluation laboratories.

NCI pamphlets on genetics and breeding standards were distributed to AVMA members viewing the exhibit.

TB is not inherited. It is an infectious disease. Family members can catch it from one another.

DGMS Awards Grants For Research Centers

PHS Surgeon General Luther L. Terry last week announced that the Division of General Medical Sciences has awarded nine grants, totaling $2,904,281, for the establishment of General Clinical Research Centers in private medical research institutions.

The grants are part of a continuing program to help improve the Nation’s activities in medical and biological research at the clinical level, Dr. Terry said.

The grant awards, to eight universities and one medical center in eight states and Puerto Rico, were made by the Surgeon General on recommendation of the National Advisory Health Council.

Since the program was initiated in the fall of 1959, grants have been made for the establishment of 40 centers. A total of $11 million was appropriated for Fiscal Years 1960 and 1961, and $27.5 million was appropriated for the current Fiscal Year.

Included in the grants awarded today are two for the establishment of centers for the study of young children’s diseases and the investigation of the problems of prematurity and metabolic defects in small infants. One of these grants is in the form of a supplemental award to Washington University School of Medicine, St. Louis, Mo., and the other is to the University of Colorado Medical Center, Denver.
JUNIOR VILLAGE
(Continued from Page 3)

The virus itself was isolated from 24 children and was shown to be significantly associated with the onset of an episode of fever with temperatures of 100.6°F. or greater. An association between the onset of pneumonia and the presence of RS virus suggests further a causal relationship between the RS virus and pneumonia in this study, the authors state.

The average highest fever among the 36 patients with pneumonia was 103.3°F, with a 4-day mean duration of fever of 100.6°F. or greater. Coryza and cough were predominant symptoms during the illness and fine or medium rales could be heard in circumscribed areas of the chest.

Although the mean age of Infirmary residents was lower than the Cottage children, age did not appear to be an explanation of the difference in incidence of pneumonia in the two groups as 13 of 14 Infirmary children between 12 and 23 months of age but only one of 18 Cottage children in the same age group developed pneumonia.

Possibilities Evaluated

The residents of the Infirmary were in general a less robust group, which may explain their greater tendency to develop illness from infection with RS virus. Another possibility to explain the greater incidence of severe illness in the Infirmary is the factor of virus dosage. The Cottage pneumonia cases were transferred to the Infirmary almost at their onset, so that the amount of virus present in the Infirmary was probably much greater than in the Cottage village.

The presence or absence of pre-linens neutralizing antibody to RS virus did not appear to influence the occurrence of pneumonia. Forty-five percent of the children without detectable neutralizing antibodies and 39 percent with detectable antibodies developed the same illness. This finding is in variance with other virus infections. For example, in influenza type A, the virus is not neutralized by antibodies in the serum of the patient; in vaccinia infection in the absence of antibody production, but in the presence of delayed hypersensitivity. The present results do not permit final evaluation of the role of delayed sensitivity in recovery from virus infection.

It is of significance that some of the pneumonia in this study was due to yet another unknown virus. Further study of the viral experience of the children hopefully will provide new information on these and related questions.

The results of the present study are in agreement with the American Journal of Hygiene. The authors are Drs. A. Z. Kapikian, J. A. Bell, K. M. Johnson, R. J. Ruebner, R. M. Channick of the Laboratory of Infectious Diseases National Institute of Allergy and Infectious Diseases, Bethesda, and Dr. F. M. Mastrota, formerly with the National Institutes of Health.

Production of Antibody Found Unnecessary to Viral Infection Recovery

In recent Division of Biologies Standards studies on the role of antibody in recovery from infection with vaccinia virus, irradiated animals, in which no detectable neutralizing antibody could be demonstrated, recovered from vaccinia infection as rapidly as non-irradiated animals. The results suggest that production of neutralizing antibody was not necessary for recovery. These studies were reported in the Journal of Immunology.

In the study, conducted by Drs. Robert M. Friedman and Samuel Baron, DBS Laboratory of Viral Immunology, vaccinia virus was used to infect Hartley strain guinea pigs. The factors of virus dosage, neutralizing antibody, circulating antibody, growth pathology, histopathology, and skin sensitivity were examined during the infection and recovery periods.

Previous studies had shown that 300 x-irradiation to guinea pigs inhibited the antibody response but not the development of delayed sensitivity to nonliving antigens. With this in mind, the investigations subjects: the guinea pigs to 300 x-irradiation 24 hours before infection with vaccinia virus. The sequence of events following infection was essentially the same as in nonirradiated animals with the major exception that antibody was not detected in serum as late as 28 days after infection, nor was it detected in the lesion at the time of elimination of virus.

In contrast to the inability to produce antibody, the animals were found to develop delayed skin reactions to vaccinia antigen on the fourth day. These results indicate that guinea pigs recover from vaccinia infection in the absence of antibody production, but in the presence of delayed hypersensitivity. The present results do not permit final evaluation of the role of delayed sensitivity in recovery from virus infection.

NHI Has 5 Branches

JUNIOR VILLAGE
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NHI Has 5 Branches In Extramural Area

The Surgeon General approved the reorganization of the National Heart Institute Extramural Area in five branches, effective December 6, 1961. As a result, the old Grants and Training Branch has been abolished.

In anticipation of this reorganization, Dr. Franklin Yenger, formerly Chief of Grants and Training Branch, was last year named Associate Director of the National Heart Institute for Extramural Programs.

Chiefs of four of the five new branches have been appointed so far. The reorganization is as follows:

Research Grants Branch, Dr. Robert P. Akers, Chief; Regional Primate Research Centers Branch, Dr. William H. Eyeston, Chief; Operations Branch, Donald B. Spencer, Chief; and Training Grants and Awards Branch, Dr. James M. Stengle, Chief. The fifth branch is the Program Projects Branch.

46 Grants Awarded

For Research Facilities

Dr. Luther L. Terry, Surgeon General of the Public Health Service, recently announced the award of 46 health research facilities grants, totaling $1,567,135, to 37 institutions in 22 States.

The Health Research Facilities Program awards funds on a matching basis to non-profit hospitals, medical and dental schools, schools of public health, and other institutions to build and equip health research facilities.

The program was established for a period of three years in 1956, continued for three more years in 1960, and extended by the eighty-seventh Congress for an additional year.

The new awards complete the distribution of both the current appropriation of $30 million allocated for Fiscal Year 1962 and the total amount of approximately $180 million allocated thus far under this program as the Federal share for health-related projects in the Nation.

46 Grants Awarded For Research Facilities

NHI 'Junior' Is Winner of Football Trophy

Jim LeCompte, 21-year-old football-playing son of two NIH employees, was awarded the Jacobs Blocking Trophy, emblematic of top lineman in the Atlantic Coast Conference held in Greenville, S.C., on January 9.

His father, George E. LeCompte of Plant Engineering, Drs., was in the banquet audience as his 227-pound son, a bonus draft choice of the Buffalo Bills of the professional American Football League, received the trophy and his certificate as a member of the All-Conference team.

"Big Jim," a physical education major with a "B" average at the University of North Carolina, is a first-string guard on the All-Conference team. Of the 46 Grants Awarded for Research Facilities, one, but played in the traditional Blue-Gray All-Star game in Montgomery, Ala.

Mr. LeCompte senior has been at NIH for 19 years. He is a member of the Contract Inspection Unit of PEB. Mrs. LeCompte is a member of the Clinical Investigations staff, NIMH.