First Effective Vaccine Against Rubella Promises Control of Infection, Defects

At a ceremony May 5 in the office of John Gardner, Secretary of the DHEW, Dr. Harry M. Meyer Jr. (left) and Dr. Paul W. Parkman received awards for developing a safe and effective rubella vaccine. They are pictured discussing their joint research prior to the awards ceremony.—Photo by Thomas Joy.

Development of the first effective experimental vaccine against rubella (German measles) by Drs. Harry M. Meyer Jr. and Paul D. Parkman, both of the Division of Biologies Standards, was announced recently.

The announcement followed a joint report by the scientists at a meeting of the American Pediatrics Society in Atlantic City.

Commenting on the discovery, Surg. Gen. William H. Stewart of the Public Health Service said:

“...the clinical data obtained to date are very encouraging. The results with this newly developed experimental vaccine make it possible to predict that rubella and its associated birth defects can be brought under control in the not too distant future. Until now, experimental live rubella preparations have caused typical rubella, and the infection was communicable to uninoculated contacts.”

The two pediatrician-virologists gave the vaccine first to eight rubella-susceptible children. These children developed immunity with no accompanying fever or rash.

8 Not Infected

Of equal importance, none of their eight playmates, also rubella-susceptible, were infected.

On the basis of these encouraging findings 26 more children were then inoculated with the attenuated vaccine and were in contact with 22 uninoculated susceptible playmates. Again the same satisfactory results were obtained.

The results obtained on these 34 vaccinated children pave the way for further developmental studies. The attenuated rubella HPV-77 virus strain will be made available for further experimentation both in the laboratory and in the field.

(See RUBEALBA VACCINE, Page 3)

Study Shows Mental Health Problems Affect Married People Least of All

The risk of needing psychiatric treatment is much higher for the single or the formerly married than for the married person, according to a new National Institute of Mental Health study.

An extensive statistical review by the Institute’s Office of Biometry, highlights this conclusion.

Dr. Morton Kramer, Chief of the treatment for the married person, according to a new National Institute of Mental Health study.

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(See RUBEALBA VACCINE, Page 3)

country in Viet Nam.

- The manner in which savings provide a break in an inflationary trend.
- The hope that NIH’s exceptionally low participation rate will be raised.

Noting that this week is the 25th anniversary of the introduction of the Savings Bonds, Dr. Shannon said that the payroll savings system “comes as close to being painless as any savings can be.”

He also emphasized the importance of recognizing our national commitments which are broad, serio-
NIIH 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

INJURIES AT WORK
All Civil Service personnel are reminded of their entitlement and obligation to seek immediate medical attention from the Employee Health Service when they are injured at work or contract a work-connected illness.

Under the Federal Employees Compensation Act the Government is responsible for all medical care needed for job related injuries or illness, as well as for rehabilitation service and compensation in the event of disability or death.

To obtain these benefits the employee must:
• Report the injury immediately to his supervisor.
• Obtain first aid from one of the Employee Health Units (Clinical Center, Bldg. 10; North Health Unit Bldg. 31, or Westwood Bldg. Health Unit).
• If further medical treatment is needed, obtain an order from the Employee Health Unit for treatment by an authorized physician or hospital.
• Make a written report of the injury or illness on a form furnished by the Health Unit, and give it to his supervisor within 24 hours.

REGISTER NOW
Primary elections are coming in September and General elections in November. In order to vote in these elections NIH employees must be registered.

Library Returns to 8 a.m. Opening Wednesday, June 1
After a 6-month trial period of opening at 7 a.m., Monday to Friday, the NIH Library on June 1 will return to its former opening hour of 8 a.m.

PAYROLL NOTES
Inquiries from employees about direct mailing of salary checks to banks or other financial organizations prompted the Financial Management Branch to provide the following information:

As a result of the enactment of PL 89-145, approved August 28, 1965, many banks are encouraging Government employee depositors to have their agencies mail salary checks direct to the bank for credit to the individual's account. A number of employees have requested that we provide this service.

One of the requirements of the legislation is that the agency head as Secretary, the DHEW, in case of NIH—must determine that the best interest of the Government would be served, both from an economy standpoint and otherwise, before any arrangements are made to mail employees' checks direct to banks.

As of this date, the Secretary has not made the required determination. Should he later determine that such an arrangement is to the Government’s advantage, employees will be advised of the procedural steps involved.

Dr. Karl Mason to Head Anatomist Assn. in '67
Dr. Karl E. Mason, Gastroenterology Program Director of the Scientific Programs Branch, Extramural Programs, National Institute of Arthritis and Metabolic Diseases, was named President-Elect of the American Association of Anatomists at its annual meeting in San Francisco, Calif., recently.

Dr. Mason will be installed as president of the association at its April 1967 meeting.

Jake, NIH Goodwill Ambassador, Proves 'To Make Friends You Must Be One'
By Margaret Suter

To Clarence Blondy happiness is being outdoors. And his job at NIH, with the DRS Grounds Maintenance and Landscaping Section, gives him lots of time to be happy.

"Jake," as he is known to the countless friends he’s made since coming to NIH 17 years ago, helps keep the NIH reservation neat, clean and litter-free.

With spear in hand, a catch-all slung over his shoulder, he starts his tour of the grounds early each morning.

As Jake picks up trash he also spreads cheer—and not only among NIH employees.

One of Jake’s friends, Harry B. Lee of Bethesda, in a recent letter to the NIH Record, says:

"May I bring to your attention that NIH has an excellent goodwill ambassador in a gentleman by the name of Jake."

Meet at Bus Stop

"About a year ago I met Jake when we were waiting at a bus stop. I was immediately impressed by his friendly personality and cheerful outlook on life. From that day we have greeted each other only by first names. And every time the NIH Record is issued Jake is a part of it. My wife and I read it with keen interest.

"He never fails to give his friendly ‘thumbs-up” greeting to people on the sidewalks of Bethesda or to those who pass through in autos or on foot.

"I think," Mr. Lee concludes, "the world is a happier place because of Jake."

Why is Jake so happy?

Jake Explains

He says it’s because he spends most of every day close to Nature. His office has a ceiling of blue and is carpeted in lush, plush green. The air he breathes has a dewy freshness or is frosty clear, depending on the season.

That’s what Jake says.

But perhaps this rapport with the world and its inhabitants dates back to his early years. Jake lost his parents while still a youngster. He grew up in a Catholic orphanage outside Buffalo, N.Y.

Forced to make his own way from the start, Jake turned outward for the love and companionship normally found within the family circle. And because Jake loves people—and shows it—people love Jake.

BETTER BUY U.S. BONDS TODAY!
RUBELLA VACCINE
(Continued from Page 1)

available to scientists interested in rubella research.

Drs. Parkman and Meyer tamed the rubella virus by subjecting it over a 2-year period to 77 passages in primary African green monkey kidney cell cultures. The high-passage virus (HPV-77), modified to the point where it effectively immunized rhesus monkeys with no spread to the controls was then considered ready for clinical trial.

Although virus other investigators have been unable to prevent experimental infection from being communicated to un inoculated contacts, the DBS research group believed that manipulation and passage of the rubella virus might furnish a strain capable of producing a modified, non-transmissible infection that would confer long-term immunity.

Research Described

They first concentrated on the development of laboratory methods that could be employed to detect changes in the virus induced by protracted cell culture passage. They subjected several rubella virus strains to repeated passage in primary African green monkey cell cultures. As the progressively higher virus passage levels were obtained, their biological characteristics were carefully studied.

High passage virus was found by in vitro techniques to be distinctly different from low passage "virulent" virus. The high-passage material caused a rapid cytopathic effect and other distinctive changes in certain types of tissue cultures relatively unaffected by the "virulent" virus. Also, the high-passage virus induced the production of increased amount of interferon when propagated in tissue cultures.

Of primary importance, however, was the finding that the high-passage virus of the 77th passage level (HPV-77 strain), when inoculated into rhesus monkeys, resulted in the development of immunity without viremia or spread to uninoculated contacts.

Success Achieved

Laboratory observations clearly indicated that the HPV-77 rubella virus strain had been sufficiently modified by tissue culture passage to use in an experimental vaccine.

The vaccine was prepared under the most rigorous standards and safety tests that applied to the production of the live attenuated vaccines for measles and poliomyelitis. The next step was a clinical trial of the vaccine.

The Meyer-Parkman team conducted the pilot studies at the Arkansas Children’s Colony, a State educational institution for mentally retarded children.
Joint Commission Receives $500,000 For Study of Children's Mental Health

A $500,000 grant for the first year of a 2-year study of the mental health of children in the U.S. has been announced by the Public Health Service.

The study will be carried out by the Joint Commission on Mental Health of Children, which was awarded the grant by the National Institute of Mental Health. Twelve major national organizations have joined with the American Psychiatric Association to organize the commission.

The commission will carry out a program of research and study of resources, methods and practices for diagnosing or preventing emotional illness in children and of treating, caring for and rehabilitating children with emotional illness.

Study Vital

Importance of such a study has been stressed by action following the 1961 final report of the Joint Commission on Mental Illness and Health. That report led to a new involvement of communities in the care and treatment of the mentally ill. The report, however, excluded any consideration of mentally ill children.

The initial year's grant of $500,000 is expected to be matched for a second year, and the commission's report of its activities and findings will be made within 2½ years of the study's beginning.

Although it has been estimated that as many as 500,000 children in the U.S. have psychoses and borderline conditions, and that another million children suffer from various other serious mental disorders, there are only about 400 child psychiatrists in the country.

The Joint Commission on Mental Health, which was the only facilities available for treatment, caring for and rehabilitating children with emotional illness, presents a grant for $500,000 for a 2-year study by the Joint Commission on Mental Health of Children to Dr. Reginald Lourie (right), Commission President, and Dr. Stanley F. Yolles, Director of the National Institute of Mental Health.—Photo by Jerry Hecht.

R&W Sponsoring Annual Jazz Concert May 27

The Recreation and Welfare Association will sponsor the second annual "Evening of Jazz at NIH," May 27, at 8:30 p.m. in the Clinical Center auditorium.

The concert will feature special guests and lively arrangements of melodies old and new. Playing in the jazz group will be Dr. Gordon Tomkins, NIAMD, alto saxophone; Dr. Burton Sobel, NIH, piano; Dr. Edward Harris, NIH, bass horn; Dr. Robert Resnik, NHI, drums, and Richard Shrager, a new member, DCRT, baritone saxophone and oboe.

All NIH personnel and their guests are invited to attend. Admission is free.

Lab Seeks New Volunteers With Colds Who Disbelieve 'Cold Cure' Medical Myths

In spite of modern medical miracles, folk myths about colds persist. For example: To cure a cold, soak both feet in a tub of hot water and drink a glass of port wine." While the "cure" is useless, at least it's pleasant for those who like spirits.

In striking contrast to folklore, NIAID's Laboratory of Infectious Diseases has been conducting a "common cold" study since 1962. A continuing supply of volunteers is needed.

Employees with colds are requested to contribute samplings of nasal secretions plus two blood samples. Participants receive $2 for each blood sample.

Please call Mrs. Sara Kelly or Harvey James, Ext. 6831, for appointments. It is best to do so within the first three days of infection.

If possible, employees are urged to schedule appointments in the morning to give researchers ample time for processing.

Book-Binding Suggestion Wins Award for Weber

David Weber, clerk in the Public Information Section of the Office of Research Information, received a cash award recently for his time-and-money-saving suggestion for preparation of books of material used by the Director of NIH and his staff during appropriations hearings.

The presentation was made by Jane Stafford, Assistant Chief, ORI, in the presence of Clifford F. Johnson, ORI Chief, members of his staff and members of the Public Information Section of ORI, headed by Guy W. Moore.

The adoption of Mr. Weber's suggestion to preserve reports and statements in easy-to-handle, paper-back spiral binders rather than in the cumbersome hard cover ring notebooks used in the past cuts insertion time.

The final result of Mr. Weber's suggestion is a neater, more readily usable, handle set of books.

Dr. Joseph Kaiser Joins DRG, Formerly at FDA

Dr. Joseph A. Kaiser has been appointed Executive Secretary of the Pharmacology and Endocrinology Fellowship Review Committee, Career Development Review Branch, DRG.

He was formerly an administrative and research pharmacologist with the Food and Drug Administration. While with FDA Dr. Kaiser conducted research on pesticides and was active in the evaluation of pharmacological-toxicological-biochemical data submitted on the safety and efficacy of potential new drugs.

The results of Dr. Kaiser's research in pharmacology and toxicology have been published in numerous scientific journals and presented before several national scientific societies.
African Malaria Occurs More Often in the U.S. Than Formerly Thought

A relatively rare African form of malaria may not be as rare in the United States as current reports indicate, according to scientists of the National Institute of Allergy and Infectious Diseases.

Instead, the malariologists say, the parasites that cause ovale malaria are dropping in numbers and becoming evident again after reports of an increase in the United States.

The first case of ovale malaria in the United States was reported in a 15-year-old man who was infected in Ghana in 1957 and developed the disease 4 months later.

The disease is caused by the Plasmodium ovale parasite, which can remain dormant in the liver for years, causing periodic attacks of fever and other symptoms.

Both scientists, of the Institute's Laboratory of Parasite Chemotherapy, are currently working with the Malaria Project at the Atlanta (Ga.) Federal Penitentiary.

Reaction Delayed

Dr. Chin, who served as a Peace Corps physician in Ghana and Togo from September 1961 to July 1963, first became ill on October 17, 1964, more than a year after his return to this country and more than 5 years after his first possible exposure in Africa.

At first, he did not himself consider the possibility of malaria. Rather, he suspected an acute upper respiratory infection. The attacks of malaise, headache and fever recurred, however, and 4 days later a volunteer was inoculated with blood from Dr. Chin.

The volunteer developed ovale malaria. After 2 days of treatment with chloroguanide hydrochloride, Dr. Chin's blood was free of the parasite Plasmodium ovale and remained so 4 months later.

The scientists reported that relapses in ovale malaria are rare and attributed that in part to rapidly developing acquired immunity, shown by the short course of the natural infection. The delayed primary attacks (other scientists have reported cases with latent periods of 1.8 years, 3.5 years, and 4 years) represent late tissue parasite activity, the scientists concluded.

Dr. Fenster, IBR, to Speak on Treatment of Autistic Children

Dr. Charles B. Fenster of the Institute for Behavioral Research will speak on the Linwood project at the IBR Colloquium to be held Friday, May 27, at 3:45 p.m. at 2496 Lindley Lane.

His topic is "Laboratory Techniques with Autistic Children in a Treatment Center."
Entries in Art Exhibit to Be Accepted, Judged May 26; Prizes Total $300

NIH personnel who have a flair for painting, sculpturing or the graphic arts are invited to enter the 8th Annual NIH Art Exhibit to compete for some $300 in prize money.

Entries will be accepted in Stone House (Bldg. 16) on Thursday, May 26, between 4 and 6 p.m. Judging will take place the same evening.

The judges are James McLaughlin, Director of the Phillips Gallery; Frank Wright, a distinguished Washington graphic artist, and a noted area sculptor yet to be named.

The accepted art work will be exhibited simultaneously from May 27 through June 17 in the West Bay of the Clinical Center lobby, the lobby of Building 31, and in the Westwood Building lobby.

Art not accepted for showing must be picked up at Stone House between 4 and 6 p.m. on Friday, May 27.

Rules Listed

Artists may submit up to three entries in each show category—painting, sculpture, or graphic arts. Each entry must be accompanied by an entry form, available from the NIH Religious & Welfare Association office, Bldg. 31, Rm. 1A18, or from the Division or Institute R&W representative.

The form must indicate each entrant's R&W number and be accompanied by a $1 fee for each entry submitted.

All NIH R&W members and their families, age 16 and over, are eligible to enter the art show. Additional information is available from the R&W office, Ext. 65597, or from AI Lauderbaugh, Ext. 61308.

Lt. Bankard Will Retire

On Birthday, May 23

May 23 is going to be a red letter day for Paul H. Bankard, Senior Lieutenant of the NIH Guard Force.

Lt. Bankard will celebrate his birthday, retire from Civil Service and start pulling up stakes for a move with his family to St. Petersburg, Fla., all on the same day.

One of the few remaining old-timers at NIH, Lt. Bankard joined the Guard Force Dec. 23, 1941. Between May 1944 and November 1945 he served in the U.S. Navy, returning here following discharge.

In 1946 he was promoted to sergeant and in 1956 to lieutenant. An outstanding guard, Lt. Bankard is noted for having a "take no bull" approach to every job. He will be given a retirement party on May 23 in Building 31.

“Do you think this will be?” Emmett Kelly Jr. asks children patients at the Clinical Center. The two eyes on the blackboard turned into a car and then to a face as Kelly’s audience eagerly anticipated the clown’s next trick. Kelly, son of the renowned circus performer, visited the Clinical Center on May 4 as part of a children’s hospital tour sponsored by Kodak.—Photo by Jerry Hecht.

Sec’y Gardner Awarded Public Welfare Medal

Secretary of Health, Education, and Welfare John W. Gardner recently received the Public Welfare Medal of the National Academy of Sciences “for eminence in the application of science to the public welfare.”

Dr. Frederick Seitz, President of the National Academy of Sciences, made the presentation.

The Public Welfare Medal is unique among the Academy Medals in that it is awarded for outstanding achievement in the uses of science for human welfare rather than in the advancement of scientific knowledge in a particular discipline.

Holders of the Medal are also given further special recognition in the form of certain privileges of Academy membership, including the right to present papers at meetings of the Academy.

Dr. James A. Shannon, Director of the National Institutes of Health, is a past recipient of the Academy’s Public Welfare Medal.

Movie on Mental Health Of Adolescent Scheduled

“Borderline,” a film on the mental health of an adolescent, will be presented by the NIH Employee Health Service this week.

Showings are scheduled for the Clinical Center auditorium, Wed., May 18 at 11:30 a.m. and 1 p.m.; NBCC No. 2, Conf. Rm. 113, Thurs., May 19 at 1:30 and 2:30 p.m.; and Westwood, Conf. Rm. A, Fri., May 20 at 1:30 and 2:30 p.m. Admission is free.
The second of the "Know Your Heart" radio series, produced by the Information Office of the National Heart Institute, has topped 1,300 requests.

Two hundred Armed Forces radio stations around the world helped swell the number of requests for this second series of ten 2-minute spot announcements recorded on 12-inch platters.

Credit for the phenomenal response to these programs has been attributed to the story in the July 14, 1965 issue of the NIH Record that fully described the content and purpose of the series.

Both series were written and produced by Louis Cook of the Heart Information Center, with narration and medical consultation by Dr. John D. Turner, formerly of NIH, now Assistant Professor of Medicine at Baylor University Medical School.

"Records" Mailed

Faesimilie of the Record story were mailed to more than 2,000 radio stations throughout the U.S. and Canada. With replies still coming in, it is expected that requests for the second series may reach 1,500.

Requests for the first series totaled 1,239. Replies from station program directors have come from all 50 states and territories.

Many letters were postmarked from Canada (especially British Columbia), Puerto Rico, Guam, the Virgin Islands—even distant Saipan—weighing less than 5½ pounds. But the neonatal death rate for this birthweight group was lower in the Negro than in the white.

Drs. Toshio Fujikura and Luz A. Froehlich, of the NINDB Perinatal Research Branch, reported these and other findings of their study of influence of race and other factors on pulmonary hyaline membranes.

Findings Given

Among 40 maternal deaths observed during the period 1959-1965 among Project women, 28 involved mothers who could be diagnosed, even before conception, as high-risk individuals. The records showed that the great majority of these women had not wished to become pregnant.

All of the 16 deaths due to direct obstetrical causes were of Negro mothers. "It is in the group of high-risk women that a major reduction in maternal deaths can be achieved through adequate family planning," commented Drs. Jose Marmol and Rudolph Vollman of the Perinatal Research Branch.

A total of 50 reports were presented on preliminary findings from the Collaborative Project, which now has reached its goal of registering 50,000 mothers in order to follow at least 40,000 of their infants through the first years of life.

Perhaps a hundred important variables may contribute to birth defects. The NINDB Project has the vast mission of looking at most of these variables at the same time in relation to one another. Correlations of data are being provided by modern electronic computers.

At the Second Scientific meeting some of the reports commented on:

- A relationship observed between maternal infection with mumps and chickenpox and birth defects.
- The correlation of fine-motor dexterity in 8-month-old infants with their higher scores in the 4-year psychological examination.
- Various factors, such as older age of mother, associated with increase of heart defects in newborns.
- Spacing of electroencephalograms to give better pictures of brain development.
- The possibility that male youngsters do not respond as well as females to some of the psychological tests may be due to preconditioning at home. Mothers often insist upon more conformity by little girls.
Study Supports Theory That Nocturnal Angina Is Triggered by Dreams

Dreams are now seen as a trigger factor in nocturnal angina. This view is supported by a recent study of rapid eye movements indicative of dreaming observed in 32 of 39 episodes of chest pain arising during sleep in patients with a history of this disease. Since some individuals with angina pectoris are frequently aroused from sleep with chest pains similar to those occurring during their waking hours, it was decided to test the possibility that such episodes might be triggered by dreaming.

Ten patients with a history of exertional and nocturnal angina were studied throughout several nights of sleep. Monitoring included continuous recording of electroencephalographic patterns, electrocardiogram, eye movements, and respiratory patterns.

Changes Observed

Four of the 10 experienced a total of 38 episodes of nocturnal angina; physiological changes indicative of dreaming were observed with 32 of these episodes.

The following sequence was typical: The sleeping patient is quiescent, his heart rate slows, respiration regular, and his EEG pattern characteristic of moderately deep sleep (stage C). With the onset of rapid eye movements (REM), the EEG pattern indicates a shift to lighter sleep (stage B).

As REM activity increases in intensity, heart rate increases, respiration becomes more rapid and irregular, and ECG changes (depression of the ST segment) are evident. Shortly thereafter, the patient awakens with chest pain.

Other investigators have found that rapid eye movements are seen only during stage B of sleep and are accompanied by dreaming more than 80 percent of the time. During deeper stages of sleep, dreams are much less common; and the subject's recollection of these dreams is usually fragmentary because they lack the vivid and immediate quality of dreams reported from REM periods.

REM Activity Noted

In this study, patients who had experienced nocturnal angina in conjunction with REM activity complained of dreaming involving strenuous physical activity or strong emotions of fear, anger or frustration, frequently accompanied by chest pain.

REM activity always preceded the EKG changes, indicating that the dreams were probably a cause, not a result, of nocturnal angina.

How dreaming might trigger angina is unknown, but the authors state that minute-to-minute changes in blood pressure, heart rate, and respiration were often striking during REM periods and might have been sufficient to compromise an already borderline coronary circulation.

These findings were reported in Annals of Internal Medicine by Drs. J. B. Nowlin, W. G. Troyer, Jr., W. S. Collins, G. Silverman, C. R. Nichols, H. D. McIntosh, E. H. Estes Jr., and M. D. Bogdonoff, all of Duke University and all NIH grantees.

NIH played host recently to 35 high school counselors, representing all high schools in northern Virginia. Similar programs were held previously for nearby Maryland schools systems. The group, which is an annual event, was organized by the National Institute of Mental Health, the National Institute of Allergy and Infectious Diseases, the National Institute of Dental Health, and the National Heart Institute.

The Clinical Center Blood Bank reports that 121 units of blood were received from NIH donors in April. During the same period CC patients received 1,691 units of blood.

Five NIH staff members joined the "gallon-donor club." They are Dr. Robert H. Alford, NIAID; Erwin R. Bogdenrider, OD; John P. Jones, OD; Edwinn Moskowitz, DRG, and Thomas Murphy, DRS.

Dr. Brodie

(Continued from Page 1)

pool, England, took his bachelor's in McGill University in 1931 and his Ph.D. in chemistry at New York University in 1935, and became a U.S. citizen in 1939.

In 1950, after spending several years teaching pharmacology and biochemistry at NYU, he entered Government service as head of the Institute of Chemistry.

In 1938, working at the same time, 36 percent more likely to enter a public mental hospital than women, it is the single rather than the married man who contributes to this high rate. Of the never-married patients, the men outnumber the women two to one.

As for the woman who heads a large family, a study of mental hospital records here May 27, a barbershop quartet, and a color film entitled "The Adolescent and His Family."—Photo by Thomas Joy.