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ARTHRITIS PROGRESS CITED IN TALKS HERE

Seven NIH scientists presented recent findings in arthritis research at the second Pan American Congress on Rheumatic Diseases, held last month at NIH and in Washington.

Six hundred rheumatic disease specialists from North and South America attended the congress, which was held in conjunction with the annual meeting of the American Rheumatism Association.

Long-term trials of dexamethasone, the new antirheumatic steroid, were reported by several groups of investigators. An NIAMD study of the drug in 27 arthritic patients was reported by Drs. Roger Black, William Reefe, John David, Kurt Bloch, and Joseph Bunim. The drug, they reported, was administered for periods up to 16 months and produced a satisfactory response in 21 of the 27 patients, although it was not free from certain undesirable side effects.

DR. DYER HONORED BY TULANE FOR PHS WORK

A Doctor of Laws degree was conferred on Dr. Rolla E. Dyer, former NIH Director, by Tulane University, New Orleans, La., last month.

Dr. Dyer was cited by the University for "his guidance during the formative phase of the Public Health Service extramural grants program" and for his "important personal contributions...leading to the development of effective methods for the prevention of such formerly dreaded diseases as typhus, Rocky Mountain spotted fever, and Q fever."

Dr. Dyer spent 29 years at NIH, and was Director from 1942 until 1950. After his retirement from PHS in 1950 he became Director of Research at the Robert Winship Clinic of Emory University, Atlanta, Ga.

GROUND TO BE BROKEN FOR SURGICAL WING



Architect's drawing of new wing to be added to southwest corner of Clinical Center.

19 AREA TEACHERS IN NIH LABS FOR SUMMER

Seven Washington area high school science teachers are among 19 from various parts of the United States who began an eight-week tour of laboratory work at NIH June 22 as members of the fourth Chemistry-Physics Teacher Institute.

Fifty-four teachers are participating in the program, which consists of classroom instruction two days each week at American University and practical laboratory work during the remainder of the week in various local research agencies, including NIH.

Teachers from the Washington area assigned to NIH are Beverly Burtnick, Gordon Junior High School, Washington; Frank T. Davenport and E. M. Kilbourne, Anacostia High School, Washington; Marion Earles and Burnita Mansfield, Paul Junior High School, Washington; Arthur B. Fauley, Richard Montgomery High School, Rockville, Md.; and Mother Etienne Becker, Marymount School, Arlington, Va.

A contract for the construction of a four-story surgical wing to the Clinical Center was awarded June 25 to the Dean Construction Company, Inc., of New York. Construction, to start in a few weeks, is expected to be completed early in 1961.

Plans for the \$1,965,000 building were drawn by the architectural firm of York and Sawyer, New York City, and Krey and Hunt, mechanical engineers. Bolt, Beranek and Newman Co., experts in acoustics and instrumentation, were consultants.

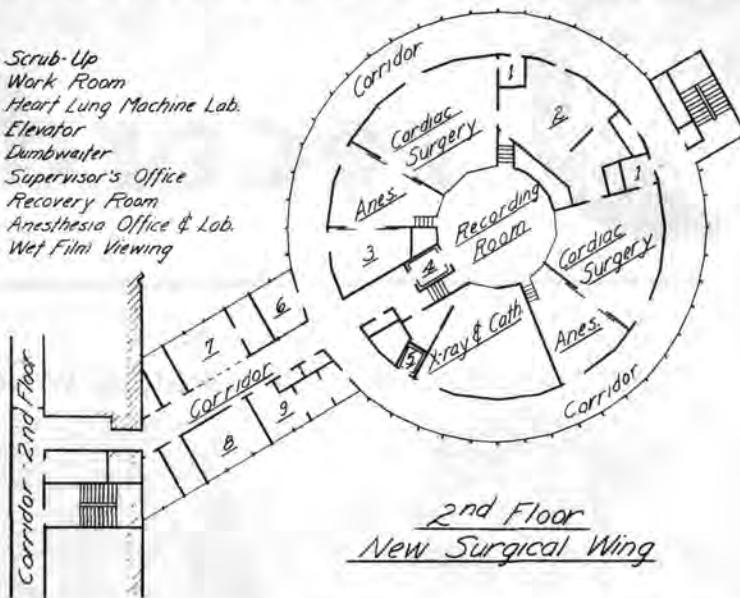
Working with the professional firms at all stages of planning was the NIH Surgical Facilities Committee under the chairmanship of Dr. Joseph E. Smadel.

The Research Facilities Planning Branch, DRS, acted as liaison between the NIH surgical staff members and the architectural and consulting firms.

All planning and construction contracts are being handled through the Public Building Services of General Services Administration.

SURGICAL WING TO INCORPORATE NEW FEATURES

1. Scrub-Up
2. Work Room
3. Heart Lung Machine Lab.
4. Elevator
5. Dumbwaiter
6. Supervisor's Office
7. Recovery Room
8. Anesthesia Office & Lab.
9. Wet Film Viewing



Floor plan of cardiac surgery floor in new wing to be added to the Clinical Center.

This summer, after many months of planning, ground will be broken for a new surgical wing to the Clinical Center.

The original operating suites, considered adequate for the anticipated space requirements of 10 years ago when the building was designed, are now much too small, largely due to the rapid advances in surgical techniques and instrumentation.

For example, in cardiac surgery the rooms must now accommodate surgical teams of 12 to 15 people, new types of anesthesia equipment, and the vital but bulky heart-lung machine. Frequently, too, visiting surgeons are invited to observe new techniques. The multiplicity of recording and electronic instruments which chart many of the patient's functions must frequently be placed in the adjoining corridor. And there is no space for the motion picture or TV photographers, often needed in modern surgical research and reporting.

The new operating rooms, according to Dr. Jack Masur, CC Director, will be among the first designed specifically to accommodate the newest instruments without sacrificing the safety, effectiveness, and efficiency that surgeons require. Flexibility of floor plan will also provide space for the use of newer and more complex instruments.

The building itself, a circular free-standing structure of reinforced concrete, will be attached

by an enclosed corridor to the southwest side of the Clinical Center. It will have four floors and a basement. The second and fourth floors will be devoted to surgery, the third will accommodate an observation room and laboratories, and the first will be used for the Blood Bank's activities in support of surgery. Mechanical equipment will be housed in the basement area.

The circular form was decided upon after extensive studies by the Surgical Facilities Committee of NIH. Working closely with the architects and consulting engineers, the Committee and the Research Facilities Planning Branch of DRS introduced many innovations developed by NIH staff members.

The hub of the circle will form large and highly adaptable recording rooms on the surgical floors. Here, one of the hazards and annoyances of old-style operating rooms will be eliminated by conducting the connecting wires from the instruments through ducts under the floor to outlets in the anesthesia and operating rooms. From these outlets flexible connections will take the wires to a console on the operating table.

Two wedge-shaped operating rooms on each of the surgical floors will be separated from the recording rooms by glass walls. On the cardiac floor, each operating room will be equipped with a special surgical lighting arrangement which is being

(See Surgical Wing, Page 3)

Publication Preview

The following manuscripts were received by the SRB Editorial Section between February 24 and March 9.

NCI

Mora, P. T.; Young, B. G.; and Shear, M. J. Reduction of toxicity of cationic macromolecules by complexing with anionic derivatives of synthetic polyglucoses.

Weisburger, J. E.; Weisburger, E. K.; Grantham, P. H.; and Morris, H. P. N-(6-hydroxy-2-fluorenyl)acetamide, a urinary metabolite after intraperitoneal injection of N-2-fluorenylacetamide into rats.

O'Gara, R. W.; Horn, R. C.; and Enterline, H. T. Tumors of the anterior mediastinum.

Snell, K. C., and Stewart, H. L. Variations in histologic pattern and functional effects of a transplantable adrenal cortical carcinoma in intact, hypophysectomized, and newborn rats.

Merwin, R. M. Repopulation of hematopoietic tissue of X-irradiated mice by cells from leukemic blood.

Algire, G. H. Growth inhibition of homografts of a plasma-cell neoplasm in cell-impenetrable diffusion chambers placed in hyperimmunized mice.

Law, L. W. Radiation carcinogenesis.

Smith, F.; Grenan, M. M.; and Lunde, K. Hemolysis formation in mice following partial, total splenectomy or spleen transplantation.

Dunn, J. E., Jr.; Slate, T. A.; Merritt, J. W.; and Martin, P. L. Findings from cytological examination of 33,750 women one or more times for uterine cancer.

NHI

Charkes, A., and Gordon, R. S., Jr. Liberation of lipoprotein lipase from rat adipose tissue *in vitro*.

Udenfriend, S., and Creveling, C. R. Localization of dopamine-β-oxidase in brain.

Burns, J. J. Biosynthesis of L-ascorbic acid; basic defect in scurvy.

Watt, J. The National Heart Institute.

Mihalyi, E., and Harrington, W. F. Studies on the tryptic digestion of myosin.

Brodie, B. B. Interaction of tranquilizers with physiological and biochemical brain mechanisms.

Gillespie, L., Jr.; Terry, L. L.; and Sjoerdema, A. The application of a monoamine oxidase inhibitor, 1-phenyl-2-hydrazinopropene (JB-515), to the treatment of primary hypertension.

von Hippel, P. H., and Harrington, W. F. Enzymatic studies on the gelatin-collagen-fold transition.

Stephenson, J. L. Theory of transport in linear biological systems. I. Fundamental integral equation.

Davis, J. O.; Yankopoulos, N. A.; and Holman, J. Chronic effects of carotid sinus denervation, cervical vagotomy and aortic depressor nerve section on aldosterone and sodium excretion.

Schedl, H. P.; Delea, C.; and Bartter, F. C. Structure-activity relationships of anabolic steroids: Role of the 19-methyl group.

NIAID

Remington, J. S.; Jacobs, L.; and Kaufman, H. E. Adult toxoplasmosis.

Vannier, W. E., and Campbell, D. H. The isolation and characterization of a purified house dust allergen fraction.

Hartley, J. W.; Rowe, W. P.; Chanock, R. M.; and Andrews, B. E. Studies of mouse polyoma virus infection. IV. Evidence for mucoprotein erythrocyte receptors in polyoma virus hemagglutination.

NIAMD

May, E. L., and Eddy, N. B. Structures related to morphine. XII. (\pm)-2'-hydroxy-5,9-dimethyl-2-phenethyl-6,7-benzomorphan (NIH 7519) and its optical forms.

Robbins, J., and Rall, J. E. Quantitative aspects of thyroid hormone turnover.

Yarmolinsky, M.; Kalckar, H. M.; and Kurahashi, K. Galactose induced bacteriostasis, an anomaly of certain mutants of *E. coli*.

Bloch, K. J. Recent modifications in serological tests for rheumatoid arthritis.

Senoh, S., and Witkop, B. Formation and rearrangements of aminochromes from a new metabolite of dopamine and some of its derivatives.

Brecher, G., and Peden, J. C., Jr. Circulation time and fate of naturally (alkaline phosphatase) and fluorescent (atabrine) labeled granulocytes.

May, E. L., and Ager, J. H. Structures related to morphine. XI. Analogs and a diastereoisomer of 2'-hydroxy-2,5,9-trimethyl-6,7-benzomorphan.

Stetten, DeW., Jr. Editorial: A current view of metabolic errors.

Johnson, D. F.; Francois, D.; and Heftmann, E. Determination of individual adrenocortical steroids in urine of pregnant women.

NIDR

Rogosa, M.; Hampp, E. G.; Nevin, T. A.; Wagner, H. N.; Driscoll, E. J.; and Baer, P. N. Blood sampling and cultural studies in the detection of postoperative bacteremias.

Baer, P. N., and Lieberman, J. E. Periodontal disease in six strains of inbred mice.

McClure, F. J. The inhibition of dental caries by phosphate minerals.

White, C. L. The statistical approach to research.

Fullmer, H. M. Effect of peracetic acid oxidation and enzymatic digestions on staining reactions for mucopolysaccharides.

Piez, K. A., and Likins, R. C. The nature of collagen. Part II. The vertebrate collagens.

Arnold, F. A., Jr. Historical review of the contributions of the ADA to biologic research in dentistry.

Baer, P. N., and Burstone, M. S. Esterase activity associated with formation of deposits on teeth.

Hampp, E. G., and Fitzgerald, R. J. The *in vitro* effects of antibiotics on oral spirochetes.

NIMH

Felix, R. H. A perspective on experimental psychiatry.

Newman, R. The way back.

Kramer, M. What can be learned from routinely collected mental hospital data.

Noshpitz, J. D. The use of space in the children's treatment residence at the National Institute of Mental Health.

Mudd, S. H. The mechanism of the enzymatic cleavage of S-adenosyl-methionine to α -amino- β -butyrolactone.

Linn, E. L. Sources of uncertainty in studies of drugs affecting mood, mentation or activity.

Hollister, W. G. Love makes all the difference.

NINDB

Van Buren, J. M., and Bergenstal, D. M. An evaluation of graded hypophysectomy in man - a quantitative functional and anatomical study.

Fuertes, M. G. F. Integrative mechanisms in the nervous system.

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NORMAL VOLUNTEERS BEGIN SUMMER SERVICE



"You are here," explains Jim Conrad, of Tangent, Ore., to newly arrived Marjorie Brubacher, of Vineland, Ontario, as the summer service unit of normal volunteers becomes oriented to Clinical Center life. This year's total of 43 is the largest number of normal volunteers yet to serve at NIH. The young people, most of them college students on summer vacation, represent a wide variety of religious faiths, although the summer unit is sponsored by the Mennonite Central Committee.

SURGICAL WING Contd.

developed by the Research Facilities Planning Branch here. It is proposed that lights be mounted around the periphery of a doughnut-shaped ring seven feet in diameter. The center of the ring will be glass-filled, and through this, on the observation floor, motion picture and TV cameras may be focused down on the surgical site. Encircling the lamp platform there will be a viewing area 24 inches wide, where up to 18 people may observe the operations.

On the neurosurgery floor, the recording room was designed to fit this service's specialized needs. Divided in two levels, the lower deck will contain, in addition to instruments for systemic recordings, a photography room where cameras will be focused on a mirror over the patient's head. On the upper deck, instruments will record directly from the patient's nervous system.

Wedge-shaped utility rooms on the neurosurgery floor have been planned by the neurosurgical staff to divide the flow of traffic and the arrangement of sterilizing and sorting tasks into separate areas to prevent contamination of the sterile equipment and atmosphere.

The corridor on the periphery of the circle will provide access to

all the rooms, but will segregate those individuals who need not maintain a sterile condition to carry out their duties.

As Dr. Masur has pointed out, "The recrudescence of the problems of infections reminds us sharply that our much vaunted 'conquest' is not yet complete..... we ought to be learning a good deal more about setting up stricter specifications for the quality of air entering surgical suites." The new plans call for ceiling outlets over the operating tables through which a blanket of sterilized air will be blown at low velocity to flood the table and prevent room air from coming in contact with the patient.

The Blood Bank on the ground floor will combine collection and processing procedures, and will be in the most advantageous position to furnish fresh blood to surgery for transfusions and the heart-lung machine. A unique addition will be a large refrigeration room with a temperature of -60 degrees C. for the long-term storage of rare bloods which previously could be kept for only three weeks.

Expected to be completed within 510 days of the ground breaking, the building will serve as a guide for surgical research facilities in the nation and in other countries.

NIAMD ENDOCRINOLOGISTS REPORT ON RUSSIAN TRIP

Recently back from a three-week tour of Russian research institutes, Drs. DeWitt Stetten, Associate Director of Research, and Joseph E. Rall, Chief, Clinical Endocrinology Branch, both of NIAMD, discussed their observations and experiences at a program in Wilson Hall on June 19. Their talks were illustrated with color slides and an 8 mm. film taken during the trip.

As part of a five-man team of endocrinologists, Drs. Stetten and Rall visited 12 institutes throughout the U.S.S.R., and gave talks at three of them. They found Russian research in physiology to be dominated by the experiments of Pavlov, the Russian physiologist who died in 1936, even to the extent of using the same type of equipment and utilizing dogs almost exclusively as research animals.

The doctors found Russian research in endocrinology to be quite different from our work; the experiments they observed were not oriented toward biochemistry. A Russian endocrinologist who had been in the U. S. last winter on a similar mission acknowledged that the Americans are ahead in this field, but stated that in accordance with the Russians' seven-year plan they would soon catch up and shortly thereafter pass the U. S.

The Russians, according to Dr. Stetten, also lag behind in instrumentation and equipment for biochemical and physiological research. In fact, major research in the field of biochemistry was car-

ried on in only two of the institutes visited.

Dr. Stetten felt that the high degree of specialization practiced throughout Russia would not be tolerated in this country. A student, at the age of 18, selects a specialized area of his chosen field and remains within it during his professional life. In the same manner, laboratories within an institute are autonomous, with little or no collaboration on research projects between them.

One of the Russian scientists with whom Dr. Stetten talked felt a need for more biochemical research. He is the director of the Sukhumi Medical Biological Station, where a large colony of baboons is being bred and used in a variety of research projects. One such project is a study of the baboons' language. The staff can now identify 20 different sounds that convey specific meanings.

"The Russians seem more interested in ideas than in experiments," Dr. Stetten said. "They are philosophically oriented, while we are pragmatic in our approach. They don't use the elaborate systems of controls that we consider necessary, but they always know just why they are doing the experiment."

Accompanying Drs. Stetten and Rall on the mission were Drs. Dwight J. Ingle and Rachmiel Levine, of the University of Chicago, and Dr. Edwin B. Astwood, New England Medical Center.

DRG Seeks References

The Data Compilation Section, DRG, is establishing a reference shelf of publications in order to assist in identifying the locations and "parent organizations" of individuals applying for NIH-administered grants.

The section is seeking copies of college and university catalogs and annual reports and directories of research institutions and foundations in the United States and abroad.

Alfred L. Bisnett, Section Chief, Building T-6, Room 1049, will be able to use data from any of these publications that NIH employees wish to donate.

EXHIBITS EARN PRIZES AT AMA CONVENTION

Three NIH exhibits won prizes at American Medical Association's convention at Atlantic City, N. J., last month.

A certificate of merit was awarded to an NCI exhibit, "Studies of Cancer Cells in the Circulatory Blood," by Drs. John C. Pruitt, Albert W. Hilberg, and Raymond F. Kaiser, of the Field Investigations and Demonstrations Branch, and Drs. Richard A. Malmgren and John F. Potter, of the Pathologic Anatomy Branch. The exhibit was designed by Medical Arts Section, DRS.

Another certificate of merit was given to an exhibit, "Application of Ultrasonic Locating Techniques to Ophthalmology," prepared by the Veterans Administration Hospital, Bronx, N. Y., and NINDB.

Dr. Theodor Wanko's NINDB exhibit, "The Crystalline Lens," also designed in DRS won an honorable mention at the convention.

DR. SOBER HEADS LAB

Dr. Herbert A. Sober has been appointed Chief of the Laboratory of Biochemistry, NCI. He succeeds the late Dr. Jesse P. Greenstein, who died last February.

Dr. Sober joined NCI in 1947, and has been Head of the Laboratory's Physical Chemistry and Chromatography Section since 1956. His cancer research work has been in the characterization of proteins by chromatography.

DR. HELLER ENDS TRIP

Dr. John R. Heller, NCI Director, has returned from a week's trip to Lima, Peru, and Bogota, Colombia. In Lima, he was a speaker at the First Peruvian Cancer Congress, organized by the Peruvian Cancer Society.

Dr. Heller addressed the opening session and presented two papers dealing with cancer control and cancer research in the United States. The congress was held June 24-27.

NFFE Officer To Speak

Leland Walker, Secretary-Treasurer of the National Federation of Federal Employees (NFFE) will speak at a meeting of the NIH local of NFFE on July 16 in Wilson Hall at noon. He will discuss the services that the national organization offers members at the local level.