Soluble Forms of Human Transplantation Antigens Aid Organ Transplants

National Cancer Institute scientists participated in a study of the preparation of high yields of a purified and soluble form of human transplantation antigens, an important aid to successful organ transplantation.

Transplantation antigens—human leukocyte antigens—are found on the cell membranes of white blood cells in the donor tissue.

Reaction Causes Rejection

The immune system of the recipient reacts against these foreign antigens and the ensuing antigen-antibody reaction causes the transplant to be rejected.

Such a rejection can be prevented by suppression of the entire immune system, but a preferable method is to induce tolerance.

Tolerance, a state in which the immune system does not react to a particular antigen as foreign, can often be induced by exposing the host to a series of small doses of the "unfamiliar" antigen.

Med. Oncology Service Established by NCI, VA

A new National Cancer Institute-Veterans Administration Medical Oncology Service has been established at the Washington, D.C., VA Hospital. The Service will function both as a part of the Medicine Branch of NCI and the D.C., VA Hospital Medical Service.

This collaboration is viewed by both NCI and the VA as an example of cooperative efforts between agencies for the betterment of both programs, and the furthering of mutual aims, including the best of patient care.

Dr. Kenneth M. Endicott, NCI Director, said the new Service reflects the growing importance of drugs in cancer treatment. The unit will serve as a focal point for NCI's expanding research program on lung cancer, and certain other forms of cancer.

Dr. Oleg S. Solawry, formerly (See NCI-VA SERVICE, Page 1)

NIAID Study Seeks to Explain Role of Interferon System in Viral Resistance

National Institute of Allergy and Infectious Diseases scientists have found that induced viral interference in cell cultures can be characterized as interferon-related even before the production of detectable interferon.

Several laboratories have provided evidence which suggests that interferon itself does not inhibit virus replication but that it stimulates the production of new macromolecules by the cell—a proposed antiviral substance.

The present study was reported by C. E. Buckler and Drs. K. T. Wong and Samuel Baron, of NIAID's Laboratory of Biology of Viruses.

It was undertaken to delineate further the role of the interferon system in viral interference through comparison of the effects of various interferon inducers on primary mouse embryo (ME) and African green monkey kidney (AGMK) cell cultures.

The PR8 strain of influenza A virus, Semliki Forest virus, rubella virus, Sindbis virus, monkey interferon, and statolon (a fungal product) were used for induction of the interferon system in AGMK cell cultures.

(See INTERFERON, Page 7)
The NIH Record

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NEWS from PERSONNEL

HEALTH INSURANCE ID CARD

Employees enrolled in the Federal Employees Health Benefits Program receive an identification card from the insurance company. This card should be carried at all times.

It contains the employee's identification number (also known as carrier control number) and enrollment code number, essential when claims for services are submitted.

An employee who has lost or misplaced his Health Benefits identification card may obtain a duplicate by contacting his insurance carrier.

VISITS TO PERSONNEL AND EEO OFFICES

Any employee may visit his personnel office to seek advice on matters he believes his personnel representative can help him with.

While an employee does not have to explain his reasons for visiting this office, he does have to arrange with his supervisor for a visiting period that will not interfere with his work.

Federal policy also insures an employee the right to contact the Deputy Equal Employment Opportunity Officer or his L/D EEO Representative with regard to a discrimination complaint.

PERFORMANCE EVALUATION

Official annual performance ratings are given to NIH employees each year in April, but supervisors should evaluate their employees' work throughout the year—to praise when justified—to correct if necessary.

Employees also have a responsibility: they should discuss work problems with their supervisor and cooperate in improving their ability to do an effective job.

Classical Music Buffs—NIH Orchestra Needs You

The NIH Orchestra wants instrumentalists who enjoy playing classical music. Membership is open to all NIH employees and their families. There are no auditions, but talent and experience are helpful.

Rehearsals are held every Monday evening from 8 to 10 p.m. in the CC auditorium. Bring your own instrument.

Elaborate Brooks lists her name with the Red Cross Hospital Volunteer Service housing registry at the CC. Getting details about Mrs. Brooks' accommodations is volunteer Irene Dietrich.

It's nice work, and you can get it if you have a spare room and would like to help fill a growing need for accommodations, she comments. Simply call the CC Red Cross Hospital Volunteer Service housing registry on Ext. 65891.

The Volunteer responsible for the registry will make necessary arrangements and match the guests to the requirements of the host.

NIH Golf Team Wins! Declared Fed. Champions

An NIH golf team has won the Federal championship in its first try.

A six-man team representing the NIH R & W Golf Association won the championship Oct. 5, beating the Labor Department team 5½ to 3½ at Northwest Park.

Playing in the finals for NIH Golf Association were Woody Awkward, Art Broering, Luther Johnson, Art McIntire, Nat White and Oscar Young, the team captain.

Players representing NIH in the Federal League were all active in the 12-team NIHGA. Other members of the NIHGA entry in the Federal League were: Al Dale, Frank Rosenweig, and Dan Nebert.
CFC Tabulation Reveals Need for Increased NIH Employee Participation

The Combined Federal Campaign at NIH has reached $163,656.22 or 78.8 percent of its $207,722 quota.

These figures, tabulated on October 3, were reported by Dr. Seymour J. Kreshover, Director of the National Institute of Dental Research and this year's NIH-CFC Chairman.

Participation Noted

"The figure represents 76.8 percent employee participation," Dr. Kreshover said.

The first report, tabulated a week earlier, showed contributions by our employees of welfare projects totaling $149,850.28 with 66.6 percent employee participation.

While the monetary increase in the second report ($13,796.95), was substantial, the percentage of employee participation only increased from 72.1 to 78.8 percent.

Gifts now average $20.30 per person with 8,058 employees listed as contributors. Over 2,000 employees have not yet participated, and the campaign is scheduled to end the end of October.

Appeals for Support

Dr. Kreshover appealed to those not yet contributing, "We must remember the need is far greater this year than before. NIH long has been known for its support of community activities and support by our employees of welfare projects on an individual as well as a group participation basis."

"I know the warmth and understanding for need is here in the hearts of all of us, and I urge those who have not yet given to reconsider."

The Recreation and Welfare Association of NIH conducted a drawing in connection with the Dr. Whang-Peng Honored by Taiwan Daily, Chosen 'Woman of the Year in Medicine

Dr. Jacqueline Whang-Peng, a senior investigator in the National Cancer Institute's Clinical Trials Area, was honored recently by the Lions International, and the China Daily newspaper in Taipei, Taiwan. She received the Woman of the Year Award in Medicine in ceremonies in Taipei.

Dr. Whang was selected because of her work in malignant cell biology and chromosomes in human malignancy. She is the first woman residing outside the Republic of China to receive the award.

Presentation of the award by Dr. Yun-Wu Wang, former Vice President, was the climax of a day which included newspaper and television interviews.

Graduates From Taiwan U.

A native of China, Dr. Whang was graduated from the Medical College of Taiwan University in 1956. She came to the United States in 1957.

She was an intern, resident, and then chief resident in surgery at the New England Hospital in Boston until 1960, and then resident in pathology at Quincy City Hospital.

In 1960 she joined NCI as a Fellow. Subsequently she was appointed Visiting Scientist until her recent appointment as a senior investigator.

Dr. Whang's scientific contributions, particularly in the field of cytogenetics, have earned her an international reputation. In collaboration with Dr. J. H. Tjio of the National Institute of Arthritis and Metabolic Diseases, she developed a technique for the preparation of mammalian cells for the study of their chromosome complements.

This technique is now utilized by many investigators and is considered responsible for much of the progress that has been made in the area.

Studies Tumor Cells

Her studies of the Burkitt tumor have revealed the presence of a specific chromosome alteration in both the cells from the original tumor and in tumor cells after culture.

Dr. Whang is a member of the Reticuloendothelial Society, American Society of Hematology, American Association for the Advancement of Science, and the Federation for Advanced Education in the Sciences. She has also served as associate editor of the Journal of the National Cancer Institute.

Dr. Whang is married to George Peng, a mechanical engineer. They are the parents of four children, ages 6, 4, 3, and 1½.

The PHS Commissioned Corps was authorized in 1889, establishing by law the policy of a mobile corps subject to duty anywhere.

Dr. Whang-Peng receives a congratulatory handshake from Dr. Yun-Wu Wang at the recent ceremony in Taipei.

DRS Sponsoring Course On Amino Acid Analyzer

The Division of Research Services invites interested employees to enroll in a training course on the Model 120 Amino Acid Analyzer.

The one-week course, sponsored by the Systems Maintenance Section of the Biomedical Engineering and Instrumentation Branch, in cooperation with the Beckman/Spincce Company, is scheduled in two sections, beginning the latter part of October.

Instructions will be given in the following:

Subjects Listed

Preparation of the reagents and ninhydrin operation of the analyzer; column preparation; sample application; stream divider and peptide analysis; utilization and interpretation of chromatograms for correct analysis and isolation of problem areas; physiological analysis; operation and maintenance of the colorimeter and pumps, and expanded scale high sensitivity operation.

Classes, consisting of lecture periods and laboratory sessions, will be held from 8:30 a.m. to 4 p.m., Mondays through Fridays.

Requests for areas of particular interest will be included into the course wherever feasible.

Contact Mrs. Louise Christy, Ext. 64131, for an application. Only a limited number can be accommodated.
NIAID Lab Asks Volunteers To Participate in Its Study

Expressing appreciation of employee's past contributions to its "common cold" study—many more than once—NIAID's Laboratory of Infectious Diseases reminds everyone that it continues to need volunteers.

Employees with colds are urged to contribute samplings of nasal secretions plus two blood samples, one at the start of the illness and one 3 weeks later. Participants receive $2 for each blood sample.

Appointments may be made by calling Sara Kelly or Harvey James, Ext. 65811, preferably within the first 3 days of infection.

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

NIH LECTURE
(Continued from Page 1)

synthetase must obtain the amino acid, asparagine, from the body's extracellular fluid in order to survive. The drug L-asparaginase destroys this extracellular source of asparagine and thereby stops the tumor's growth.

Normal cells also contain asparagine synthetase and are independent of exogenous supplies of L-asparagine.

Describes Research

In addition to describing his research on the amino acid asparagine, Dr. Meister will discuss another amino acid, glutamine, required for the synthesis of asparagine.

Present data indicate that the enzyme glutamine synthetase, essential in glutamine production, is widely distributed among normal tissues and is present in greater or lesser amounts in various tumors.

Dr. Meister suggests that a possible approach to cancer therapy might be the chemical inhibition of glutamine synthetase, thus setting up a series of biochemical roadblocks that would deny asparagine to the cancer cell.

Dr. Meister, who was on the staff of NIH from 1946 to 1955, was head of the Clinical Biochemical Research Section, National Cancer Institute, from 1951 to 1955. From 1956 to 1967, he served as professor and chairman of the Department of Biochemistry at Tufts University School of Medicine.

Background, Achievements Cited

He has held his present position at Cornell University Medical College since 1967.

He received the B.S. degree (cum laude) from Harvard College in 1942 and the M.D. degree from Cornell University Medical College in 1945.

Dr. Meister has authored or co-authored more than 160 scientific papers. He has been responsible for many advances in the biochemical investigation of amino acids and proteins and the mechanism of enzyme action.

He was the recipient of the Paul Lewis Award in Enzyme Chemistry presented by the American Chemical Society.

NCI-VA SERVICE
(Continued from Page 1)

chief of Chemotherapy at St. Jude's Children's Research Hospital, Memphis, Tenn., will head the new Service.

The Service will plan and conduct clinical trials with new and established anticancer drugs, and investigate the activity of new agents.

Dr. Selawry and his associates will also join investigators from other units of NCI's Clinical Trials Area in a study of cell kinetics in patients with solid tumors. A 30-bed facility at the VA Hospital will be devoted to the cancer chemotherapy studies. At the present time the unit has two senior investigators, a junior physician, and a VA staff physician, in addition to Dr. Selawry.

Dr. Schiaffino Appointed Acting Br. Chief, DRG

Dr. Stephen S. Schiaffino has been appointed acting chief of the Research Grants Review Branch, Division of Research Grants.

Dr. Schiaffino has been assistant chief for referral in RGRR since 1964. From 1961 to 1964 he was a scientist administrator with the Research Grants Branch of the National Cancer Institute.

He was associated with Hazleton Laboratories, Inc. from 1960 to 1961.

Serves with FDA

From 1948 to 1960, except for a 3-year tour of duty in the U.S. Army Medical Corps, Dr. Schiaffino was a chemist and biochemist with the Food and Drug Administration.

Dr. Schiaffino is an alumnus of Georgetown University where he received the B.S. degree in 1946, the M.S. degree in 1948, and the Ph.D. degree (biochemistry) in 1956.

Dr. Schiaffino is a member of the American Institute of Chemists, the American Institute of Nutrition, the Animal Nutrition Research Council, and the American Association for the Advancement of Science.

Before coming to NIH Dr. Schiaffino was a chemist and biochemist with the Food and Drug Administration.

PHS Newcomers Club to Honor Surg. Gen. and Mrs. Stewart

Surg. Gen. William H. Stewart and Mrs. Stewart will be given a reception, sponsored by the PHS Newcomers Club, on Nov. 2 at the PHS Officers Club, 9101 Old Georgetown Road, Bethesda.

The purpose of the Newcomers Club is to welcome newly-arrived PHS officers, acquaint them with the Washington area, and introduce them to other club members.

PHS officers interested in joining the organization may contact Dr. Charles A. Daniels via telephone: 933-7982.
Dr. Jeffry J. Shields Joins Heart Institute Staff

Dr. Jeffry J. Shields has been appointed to the National Heart Institute staff as a health scientist administrator in the Program Projects Branch, Extramural Programs.

In his new post, Dr. Shields will direct the activities of two Program Projects Branch sections which study and evaluate applications for program project grants and planning grants toward the establishment of Cardiovascular Research and Training Centers.

Grants Offer Flexibility

These grants provide long-term support that enables recipient institutions to conduct broadly based research on a variety of cardiovascular problems. They also provide the flexibility needed to encourage multidisciplinary approaches to complex problems.

Dr. Shields comes to NHL from the U.S. Army Medical Research and Nutrition Laboratory, Pitman; where for the past three years he headed a multidisciplinary research team and served as assistant chief of the Physiology Division.

A graduate of the Central Methodist College, Fayette, Mo., Dr. Shields earned an M.A. in physiology in 1958, and Ph.D. in environmental physiology in 1962 from the University of Missouri.

Dr. Shields research interests have been in high altitude physiology with particular reference to carbohydrate and lipid metabolism and the cardiovascular effects of oxygen deprivation.

2 Distinct Insulin Chemical Components Discovered by NIAMD Research Team

Insulin, the body chemical that enhances utilization of sugar, has been found to have two distinct chemical components by scientists of the National Institute of Arthritis and Metabolic Diseases.

One component, so-called "little insulin," is indistinguishable from the hormone produced by the pancreas, while the second component, "big insulin," is larger in size and comprises up to 50 percent of the insulin in the circulation.

Dr. Jesse Roth, who headed the team of scientists which discovered the dual insulin components, declared that the physiology of insulin production must be completely re-examined in light of the new findings.

Whether or not there is any relationship between "proinsulin" and "big insulin" is yet to be determined.

Scientists at the NIH and researchers supported by NIH grant funds are continuing their studies to learn the exact mechanism of insulin release from the pancreas, and how insulin does its vital work in human tissue, and why it fails in diabetes.

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Dr. Roth, who is chief of the Institute's Diabetes Section, together with Drs. Phillip Gorden and Ira Pastan of the same section, reported their findings to the annual meeting of the American Society for Clinical Investigation in Atlantic City and at the recent annual meeting of the American Diabetes Association in San Francisco.
Three Educators Named To Council on Education For Health Professions

Three leading educators have accepted appointment to the National Advisory Council on Education for Health Professions, DHEW Secretary Wilbur J. Cohen announced recently.

They are Dr. Merlin K. DuVal, dean of the College of Medicine of the University of Arizona; Dr. William H. Knaisel, director of the Institute of Biology and Medicine, Michigan State University, and Dr. Alvin L. Morris, assistant vice president of the University of Kentucky Medical Center, formerly dean of its College of Dentistry.

"We are deeply grateful to these outstanding educators for being willing to take time periodically from their heavy schedules to share their expertise with us in solving the serious manpower problems affecting every health profession in the Nation.

Join Other Leaders

"They will join 15 other distinguished leaders, including the Commissioner of Education and the Director of the National Institutes of Health, as members of this important council," Secretary Cohen said.

The National Advisory Council on Education for Health Professions was established by Congress in 1963 to advise on policies relating to the administration of the Health Professions Construction Program.

These policies deal with the review of applications for grants to support research in health manpower as well as for construction of health educational facilities.

Blood Bank at CC Reports On 'Special Status' Donors

The Clinical Center Blood Bank reports that six more donors achieved a special status during the last half of September.

Dr. W. Glen Moss, NHI, reached the 2-gallon mark.

Dr. Lewellys F. Barker, DBS, Judith L. Bergmann, NIMH, Preston H. Grantham, NCI, Margaret G. McKelwain, NIAID, and Dr. J. Frederic Mushinski, NCI, joined the Gallon Donor Club.

More blood is needed. Make an appointment to donate—call Ext. 64506.

Dr. Newman Appointed NICHD Administrator

Dr. Sidney H. Newman has been appointed behavioral scientist administrator in the Reproduction and Population Research Branch, Extramural Programs, National Institute of Child Health and Human Development.

Dr. Newman will administer research programs which concentrate on the behavioral science or psychosocial aspects of reproduction, family planning, and population dynamics.

He will also administer research grant funds and develop program concerning family planning and other related facets.

Dr. Newman received his B.A. degree from Washington and Lee University and his M.A. and Ph.D. degrees from Clark University.

3 New Members Join NICHD Advisory Council

Three new members—Dr. Heinz F. Eichenwald, Dr. Kenneth J. Ryan, and Walter M. Beattie, Jr.—have been named to serve on the National Advisory Child Health and Human Development Council for 4-year terms.

The appointments were announced recently by Dr. Philip E. Lee, Assistant Secretary for Health and Scientific Affairs, DHEW.

Dr. Eichenwald, who is professor and chairman of the Department of Pediatrics at Southern Medical School, University of Texas, has done extensive research in pediatrics.

Dr. Ryan is professor and director of the Department of Obstetrics and Gynecology, School of Medicine, Case Western Reserve University.

Mr. Beattie, who is dean and professor in the School of Social Work, Syracuse University, is interested in health and economic problems of the adult and aging population.

New Antigenic Type of C. neoformans Reported By NIAID Investigators

Studies of antigenic variation among isolates of Cryptococcus neoformans by the National Institute of Allergy and Infectious Diseases suggest major geographical differences in distribution of serotypes of this pathogenic fungus.

This yeast-like fungus causes a self-limiting respiratory disease in some persons and, in others, a more serious disseminated infection with a marked tendency to invade the central nervous system.

Found in Soil

The organism is found in the soil and elsewhere, living on dead or decaying animal matter, particularly pigeon droppings.

Previous serological studies have resulted in the division of the species into three antigenic types: A, B, and C.

In the current studies, scientists of NIAID's Laboratory of Clinical Investigations—Dr. J. E. Bennett, J. W. Bailey, and Dr. D. E. Wilson (now with the Thorndike Memorial Laboratory, Boston)—further examined the antigenic variation among isolates of C. neoformans to determine whether serotyping would have value as an epidemiological tool.

One hundred six isolates of C. neoformans, obtained from patient material or from nature, were investigated. Agglutination and absorption studies were carried out, using anticyryptococcal sera from immunized rabbits.

Isolates Typed

Of the 106 isolates, 69.8 percent were Type A, 10.4 percent were Type B, 6.6 percent were Type C, and 4.7 percent made up a new antigenically distinguishable group which the scientists designated Type D.

A small number (3.8 percent) reacted with both A and D sera. The rest (4.7 percent) could not be typed.

Although most isolates were Type A, none known to have originated in California fell in this category. In general, the California isolates were Types B or C.

The investigators suggest that, on the basis of these findings, studies of the epidemiological distribution of C. neoformans serotypes would be warranted in an effort to obtain a clearer picture of the source of this fungal infection in man and its mode of transmission.

Radiation Study Conducted

A separate study on experimental radiation of pregnant mice was conducted. After approximating gestational days in mouse pregnancy to gestational weeks in humans, the tabled results were comparable.

Moreover, histological findings in the brains of irradiated mice permitted speculation on the type of brain pathology seen in children exposed to excessive radiation; this was rarely possible to determine directly in human studies.

This study was reported by Dr. A. S. Dekaban, head of the Section on Child Neurology, NIND.
NIAID, Pakistan-SEATO Cholera Study Reveals Oral Glucose Aids Treatment

Two National Institute of Allergy and Infectious Diseases scientists working with researchers from the Laboratory, Daecu, East Pakistan, report that administration of glucose to cholera patients reduces the net stool output.

Interferon Detection Slow

In separate investigations, the NIAID scientists characterized interferon-induced resistance to viruses and found it similar in the following ways: (1) non-specific for challenge viruses, (2) most effective against viruses of known interferon sensitivity, (3) prevented by actinomycin D, and (4) eventually accompanied by production of detectable interferon.

Other Interference Possible

Although the authors propose that resistance to virus observed in these studies is largely attributed to action of the interferon system, they acknowledge that other forms of viral interference may have been occurring independently.

More work is needed before it can be determined how frequently the many instances of viral interference are mediated by the interferon system.

Dr. Lawrence Van Kirk Named to NIDR Post

Dr. Lawrence E. Van Kirk, Jr. has been appointed training grants officer in the Extramural Programs of the National Institute of Dental Research.

In this position, Dr. Van Kirk will coordinate policy for the Institute's support of graduate research training and will serve as Executive Secretary of the Dental Training Committee.

Dr. Van Kirk succeeds Dr. Emil L. Rigg, who will assist Dr. Clair L. Gardner, associate director for Special Programs, in administering the Dental Research Institute's program which already has established five centers in various parts of the country.

Prior Service Cited

Dr. Van Kirk comes to the NIDR from the Division of Health Examination Statistics, PHS National Center for Health Statistics. Before that, he was with the Division of Dental Public Health and Resources from 1954 until 1962.

Dr. Van Kirk holds both the B.S. and the D.D.S. degrees from the University of Pittsburgh and a Master of Public Health from the University of Michigan.

Dr. Feinleib Named Chief Of Field Epidemiological Research Section, NHI

Dr. Manning Feinleib has been named chief of the Field Epidemiological Research Section, National Heart Institute. The section, previously based in Cambridge, Mass., has been relocated within NHI's Epidemiology and Biometry Program.

Dr. Feinleib will supervise epidemiological studies which take advantage of unique population or project resources to investigate cardiovascular disease problems.

Involved in Twin Study

In addition to collaborating with other heart disease studies, Dr. Feinleib and his staff are also involved in a study of 300 pairs of twins in the New England area to investigate genetic factors in the occurrence of cardiovascular disease.

The Field Epidemiological Research Section also plans a study of cardiovascular morbidity and mortality rates of selected population groups based on the 1970 census.

Dr. Feinleib has been an NHI research epidemiologist since 1966. Prior to that time he served as assistant professor of Epidemiology at the Harvard University School of Public Health.

Academic Appointments Noted

He has held other academic appointments at the Tufts University Medical School and the State University of New York, Downstate Medical Center.

Dr. Feinleib is a graduate of Cornell University. He received his medical degree from the State University of New York, Downstate Medical Center, and a Masters degree and a doctorate in epidemiology and biostatistics from the Harvard University School of Public Health.

Ralph Fleischman (center), scientific program specialist with NHI, receives a 30-year Service Award from Dr. Jerome Green (right), and Dr. Glen Moss. Mr. Fleischman has been with PHS since 1936; he came to NIH in 1948.

Theodore Orlin, a summer employee with the Bureau of Health Manpower, is now with the Peace Corps in the Republic of Malawi. "Ted" is teaching English and social studies to high school students, and learning Chinjona, the language spoken in Malawi.
A new exhibit illustrating highlights of the history of blood transfusion has gone on display in the lobby of the National Library of Medicine.

The exhibit includes illustrations relating to early blood transfusion apparatus, material from the extensive collection of the Library’s History of Medicine Division, and a number of actual implements used in the late 19th and early 20th centuries.

Among the blood transfusion apparatus displayed is a metal blood-warming device designed by Dr. Thomas G. Morton, who held clinical sessions at Pennsylvania Hospital in the late 19th century. Blood was stored in a conical container surrounded by hot water and stirred with broom whisks to prevent coagulation.

**Displays Described**

Pictorial material includes the first illustration of an intravenous injection in man; from J. S. Elsholtz’s “Chymatica nova,” Berlin, 1667.

The first illustration of an intravenous injection in man; from J. S. Elsholtz’ “Chymatica nova,” Berlin, 1667.

Illustrations from Lorenz Heister’s “Surgery” (1763), showing purely hypothetical transfusions: Fig. 10, an indirect transfusion; Figs. 11 and 12, vein-to-vein transfusions without a pump; Fig. 13, transfusions from the femoral artery of a sheep into an antecubital vein of man.

Illustrations from Lorenz Heister’s “Surgery” (1763), showing purely hypothetical transfusions: Fig. 10, an indirect transfusion; Figs. 11 and 12, vein-to-vein transfusions without a pump; Fig. 13, transfusions from the femoral artery of a sheep into an antecubital vein of man.

James Blundell’s transfusion chair for the donor. The receiving vessel and pump, enclosed in a water jacket, are attached to the chair by a vise. (After Blundell, 1824.)

The exhibit is open to the public until Dec. 20, during the Library’s regular hours: 8:30 a.m. to 9 p.m., Monday through Friday; and 8:30 a.m. to 5 p.m., on Saturday.

**TRANSPLANTS**

(Continued from Page 1)

The availability of large quantities of human leukocyte antigen in a soluble and purified form may eventually provide the opportunity to induce such tolerance to organ transplants.

In the present study, the investigators obtained soluble human transplantation antigens from human lymphoid cell membranes by enzymatic digestion. These soluble antigens were further purified by fractionation with acrylamide gel electrophoresis.

In the course of the work, two molecular sizes of the antigen were found. This may indicate that two different but very closely related genes control these antigens.

Further studies will be undertaken to determine the molecular form of antigen as it exists on cell membranes.

The next step will be clinical testing of the soluble transplantation antigen, with an evaluation of the possible therapeutic effects in recipients of organ transplants.

This will require correlation of physico-chemical characteristics of the soluble antigen, analytic testing, and clinical observations.

**NICHD Book on Aging Probes Leisure Problems**

A new book, The Retirement Process, edited by Dr. Frances M. Carp, has been published by the National Institute of Child Health and Human Development. It reports on the first of a series of conferences on retirement, held by NICHD’s Adult Development and Aging Branch.

The conference, held in December 1966, explored research ideas and suggested areas that required particular study.

The Nation’s leading experts in aging research contributed to the book. They explained what is known—and what is not known—when an individual passes from active employment to, frequently, full-time leisure.

A retired person does not always know how to cope with the empty hours. In addition, that period may be accompanied by decreased health, loss of prestige, and a feeling of uselessness.

The book identifies these and other problems of men and women who face this challenge.

At the time of the conference Dr. Carp was on the NICHD staff and is now Director, Human Development Research Program, American Institutes for Research, Palo Alto, Calif.


Single free copies are available from the Public Information Branch, NICHD.

Dr. Wittenberger Named Chief, New NIDR Physiology Section

Dr. Charles Wittenberger has been named chief of the new Microbial Physiology Section in the Laboratory of Microbiology, National Institute of Dental Research.

Dr. Seymour J. Kreshover, NIDR Director, announced the Section’s establishment, and designated Dr. Wittenberger as its chief.