Human Growth Hormone Is Synthesized For First Time by Drs. Li, Yamashior

Human pituitary growth hormone (HGH), previously isolated and identified by Dr. C. H. Li, University of California, San Francisco, and his associates, has now been synthesized for the first time by Dr. Li and Dr. D. Yamashior, whose work has been supported by NIAMD for more than 17 years.

Dr. Li and associates had previously isolated and purified eight of the ten known hormones secreted by the anterior pituitary gland, and had determined the structure of seven of them.

Of these, Dr. Li and his associates isolated and purified human growth hormone (HGH) in 1956, and determined its structure in 1966.

Armed with the disclosure of the chemical makeup of HGH, it took 4 more years of research for synthesis of HGH to be achieved.

The synthesis of HGH has enormous implications. Until now, research on human growth and other functions was dependent upon the minute supply of material derived from the pituitary glands of human cadavers.

Consequently, research on the effects of the hormone on fat, carbohydrates, and protein metabolism, and on dwarfism, giantism, obesity, and diabetes, all of which are affected by HGH, have been hampered by the very small supply of available hormone.

Equally restricted is the more widespread clinical therapeutic application of HGH in combating a special type of growth retardation and stunting (hypopituitary dwarfism) which is caused by impairment of the secretion of HGH by the pituitary gland.

The human pituitary glands, obtained from cadavers and used by Dr. Li in his work, were supplied by the National Pituitary Agency at the University of Maryland School of Medicine, which operates through NIAMD contract support. The availability of these glands has made much of this work possible.

Dr. Li's research reveals that HGH stimulates milk secretion in addition to regulating growth. He believes there may be many other important clinical applications for HGH, particularly in the internal turnover of body tissues and in the etiology of various diseases, including certain types of cancers, diabetes, and atherosclerosis.
NIH Television, Radio Program Schedule

Television

NIH REPORTS

WRC, Channel 4 1 a.m. Wednesday
NEW SERIES and NEW TIME (To be announced)
Radio DISCUSSION: NIH WGMS, AM-570—FM Stereo 103.5—Friday, about 9:15 p.m. January 22
Dr. Richard L. Christiansen, NIDR Subject: Malocclusion January 29
Dr. James M. Stengel, chief, National Blood Resource Program, NHLI Subject: National Blood Resource Program

Interview takes place during intermission of the Library of Congress concerts.

CC Blood Bank to Issue New Employee ID Cards

Within a few weeks, the Clinical Center Blood Bank will issue new Blood Assurance Identification Cards to NIH employees. The distribution of the new wallet-size cards coincides with the observance of National Blood Donor Month.

Effective Jan. 1, 1971, the plan provides coverage to NIH employees and their families for any amount of blood and in any hospital on a calendar year basis.

In the past, distribution of the cards was made on a fiscal year basis. If any employee does not receive a card, or desires to donate blood, call Ext. 64509.

Popular 13-Film Series, 'Civilisation,' Opens at CC Auditorium Jan. 27

"Civilisation," the popular series of British Broadcasting Corporation films depicting the artistic and cultural achievements of Western Man, will be shown weekly in the Clinic Center's 14th floor auditorium during the next 4 months. Although these showings have been arranged by the CC Patient Activities Section primarily for patients, NIH employees, their families, and friends, are invited.

First in the series, The Frozen World, will be shown Wednesday, Jan. 27, at 7 p.m.

Includes 13 Films

"Civilisation" includes thirteen 52-minute films produced in color by the BBC and narrated by Sir Kenneth Clark. The films were shown at the National Gallery in Washington and have been televised.

Showings at NIH are made possible through the Prince Georges County Memorial Library. This library has a selected reading list to accompany each film. Copies of the list may be requested from the library.

Scheduled for future NIH showings are: Feb. 3, The Great Thaw; Feb. 8, Romance and Reality; Feb. 17, Man—The Measure of All Things; Feb. 24, The Hero as Artist; March 3, Protest and Communication, and March 10, Grandeur and Obedience.

Also, March 18, The Light of Experience; March 24, The Pursuit of Happiness; March 31, The Smile of Reason; April 7, The Worship of Nature; April 14, Fallacies of Hope, and April 21, Heroic Materialism.

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NIH Televisio
NHII Program Seeks to Improve, Foster Training, Careers in Respiratory Diseases

The National Heart and Lung Institute is inaugurating a new program of Pulmonary Academic Awards for the purposes of improving pulmonary training programs in U.S. schools of medicine or osteopathy and fostering academic careers in the respiratory-disease field.

The program is designed to meet the rapidly growing need for highly trained researchers, clinicians, and teachers concerned with pulmonary physiology and with the prevention, diagnosis, and relief of emphysema and related chronic respiratory disorders.

Estimates of the number of people afflicted to some degree by these diseases range from more than 2 million up to 14 million.

Despite the already serious and steadily increasing health problem posed by these diseases, medical schools have experienced difficulties in attracting sufficient numbers of well-qualified students into the respiratory-disease field.

**purposes listed**

- To help overcome these problems, Pulmonary Academic Awards, made on a competitive basis to schools of medicine or osteopathy, will provide support for periods up to 5 years, with the possibility of renewal for an additional 3 years, to enable recipient schools to:
  - Design challenging respiratory-disease curricula that will attract high-quality students into this field and provide them with superior training in modern techniques.
  - Attract promising young teacher-investigators into academic careers in the respiratory-disease field and strengthen the pulmonary training staffs of recipient schools.
  - Facilitate the exchange of ideas, methods, and techniques of multidisciplinary pulmonary training among recipient institutions.

Awards will be limited to one per eligible school, with the number of awards to be made during 1971 and subsequent years contingent upon the availability of funds for this program.

Medical schools and schools of osteopathy are being invited to submit applications for these awards to the National Institutes of Health by Feb. 15.

**Instructions for making applications**

NCl Surgery Branch Needs Blood Samples for Studies

Single blood samples of 50 cc from persons between the ages of 30 and 65 who have no known illness or disease are needed for comparative studies with cancer patients.

Volunteers will be reimbursed $4 and, if desired, the results of routine blood tests will be sent to a physician designated by them.

Call the NCI Surgery Branch, Ext. 63095, for details.

DCRT Brochure Includes New Computer Courses and Seminars in Spring

A brochure describing computer training courses and seminars offered by the Division of Computer Research and Technology for the spring semester is now available.

The brochure may be requested at B/I/D Personnel Offices and from the Computer Center Branch Technical Information Office, Ext. 6546.

Several courses and seminars will be offered for the first time.

New training courses are: Utilities at NIH, SNOBOL4, Introduction to the CALMA Digitizer, and EMAG Language.

Seminars noted

Seminars include: Heuristic Programming Principles and Practical Applications, Topics in Computer Graphics, Storage and Retrieval Algorithms, Artificial and Natural Pattern Recognition, and Introduction to the Chemical Information System.

Early registration is advisable. Procedures are outlined in the brochure.

Application forms should be sent to the employee's Personnel Office. The forms will be accepted until classes are filled.

If a course is oversubscribed, DCRT will attempt to start another section.

GROWTH HORMONE

(Continued from Page 1)

Professor Isaac Berenblum, head of the Department of Experimental Biology, Weizmann Institute of Science, Rehovot, Israel, will join the Fogarty International Center as a Scholar-in-Residence Feb. 1, and remain until the end of July.

He and his wife will reside in Stone House during this period.

Professor Berenblum, an authority on experimental carcinogenesis, has published a number of scientific papers and is the author of several books on cancer.

For many years he has been active in the International Union Against Cancer. He has also been a member of the International Cancer Research Commission since 1954.

Professor Berenblum was born in Poland and educated at Leeds University in England, where he received his medical degree.

From 1938 to 1948 he was a member of the faculty at the University of Oxford and in charge of the Oxford University Research Center of the British Empire Cancer Campaign.

Prior to assuming his post at the Weizmann Institute, Professor Berenblum spent 2 years in this country conducting research at NCI.

Dr. Rosenthal Receives Annual Dean Award for Studies on Schizophrenia

Dr. David Rosenthal, chief of the Laboratory of Psychophysics, National Institute of Mental Health, received the Ninth Annual Stanley R. Dean Research Award for his studies of the roles of heredity and environment in schizophrenia.

Dr. Rosenthal was honored at the winter seminar meeting of the American College of Psychiatrists in Fort Lauderdale, Fla., Jan. 14-16.

The award includes a $2,500 tax-free grant. It is made by the College and the Fund for the Behavioral Sciences each year to a scientist who has made a major contribution in the area of schizophrenia.

In a recent study of 5,500 adopted children in Denmark, Dr. Rosenthal compared those who had a biological schizophrenic parent with those who did not. The children who had such a parent developed more schizophrenic disorders.

Dr. Rosenthal also studied children raised in a cooperatively operated kibbutz, comparing them with other Israeli children raised in traditional families. Data were gathered on the children of schizophrenic parents and the children of normal parents.

The amount of influence contributed by genetics and by environment was analyzed, as well as the interaction between the two.

Both studies reveal the importance of genetic and environmental factors in schizophrenia.

In addition to many scientific papers, Dr. Rosenthal has contributed three important books to the literature on genetics and schizophrenia.

Sections, DRC.

In addition to discussing his work with HGH, Dr. Li presented a report on the "Chemistry of Pituitary and Placental Lactogens."
DRS's Byrne, DeBroske Retire; Creativity Aided NIH Research Effort

More than 180 friends and colleagues gathered together recently to mark the retirement of two long-time NIH employees. Joining in the festivities, which included a dinner and dance, were the families of Charles J. Byrne and John M. F. DeBroske, whose combined Federal service exceeds 67 years, 50 of which were spent at NIH.


During his career at NIH, Mr. Byrne made numerous contributions to the NIH intramural research effort.

Foremost among these was a multiple millepore filter holder, for which he and Dr. Philip Leder, NICHD, share a patent and co-authored paper.

He also helped devise the special operating table on which the late Dr. Maitland Baldwin of NINDS performed the first surgical separation of Siamese twins joined at the head, and assisted in a major modification of the first heart-lung bypass from England by Dr. A. Glenn Morrow of the Heart and Lung Institute.

John DeBroske, also known for his innovative creativity, also began his Federal service with the Naval Gun Factory in 1936.

Made Section Chief

Ten years later he joined NIH as an instrument maker and, in 1959, was named chief of the Instrument Fabrication Section.

In 1966 he was appointed to the newly-created position of assistant branch chief for Technical Services. In addition to sharing responsibility for devising and developing the previously-mentioned operating...