



Harry Waisman: professor of pediatrics.

1954/1999

[Madison, Wisconsin]: [s.n.], 1954/1999

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150 YEARS

UNIVERSITY OF WISCONSIN • SINCE 1848

Sesquicentennial snapshot



A young boy undergoes an examination at UW Hospital in 1958. Over the years, the hospital has advanced health care for children in many ways. In one of the most significant developments, pediatrician and biochemist Harry Waisman helped kick-start the fight against mental retardation in the mid-1950s by identifying a way to combat phenylketonuria (PKU), a condition suspected of causing mental retardation through the inability of some infants in the first days of life to effectively metabolize essential proteins in food. The effort led to mandatory screening for PKU at birth throughout the country. This and other work became a springboard for studies of mental development continued today at UW-Madison.

FLASHBACK

HISTORICAL HIGHLIGHT

Memorial Union opened in 1928 and quickly developed into the campus's "living room," a gathering place for students, faculty, staff and alumni. It was the first campus union to offer a craft shop (1930), the first to serve beer following Prohibition (1933), and the first to feature a cultural center when Union Theater opened in 1939. Its terrace view, overlooking Lake Mendota, might be the best in academia.

Recognizing how the Union complements the classroom, UW's regents designated it in 1935 as the Division of Social Education.

PEOPLE FROM OUR PAST

In 1930, Harry Harlow began a remarkable quest to explore intelligence and emotion in nonhuman primates. The first to show us that monkeys could learn how to learn, Harlow demonstrated that monkeys are driven to explore, manipulate and experience affection. He was also able to illustrate through his monkey subjects that there is a biological basis of attachment between mother and infant — findings that earned Harlow the National Medal of Science, the nation's highest scientific honor.

Biochemist Edwin Bret Hart came up with the idea of iodized salt. In the 1920s, Hart found that iodine could prevent endemic goiter. His development of a method to stabilize iodine in salt, which resulted in the now-familiar table salt, effectively eliminated the disease in humans and livestock.

FACULTY MEMORIES

"I came to the university from Brooklyn, Wis., just 15 minutes away from Madison. There were 13 students in my graduating class and I didn't have the opportunity to study a foreign language because the only electives were typing, shorthand and agriculture. When my advisor recommended Spanish, I agreed and was placed in an experimental program that consisted of two hours daily, four days a week. My first two teachers were Lloyd Kasten and Luis Crespo, a Peruvian who spoke no English. It was wartime and there were 14 young "ladies" in the class. Because of that situation, some of us are still friends today, more than 50 years later.

"Mr. Kasten was a patient teacher in our classroom in the basement of Bascom Hall. We had no textbook for the first six weeks, and my roommate made fun of my attempts to learn the language. I went to Mr. Kasten in tears and asked him if he could explain the infinitive to me. After 10 minutes a whole new world of language was revealed, which I have since told thousands of students about. After just four semesters of studying Spanish I was asked to be the undergraduate assistant in the Foreign Languages department — an experience that changed my life.

"I completed a master's degree in Spanish and a Ph.D. in education and Spanish, taught high school for two years, one year on the island of Aruba teaching for Standard Oil, 20 years at UW-Madison, and finally, 31 more at UW-Eau Claire. Best of all, two sons and a daughter-in-law (a Spaniard) are Spanish professors in the UW System, and we are all in contact with Professor Kasten on a regular basis!"

— Roma Hoff

Sesquicentennial Events

Public events and exhibits

March

23 Tuesday

ROUNDTABLE

"From Renewal to Revolution: The History of the University: 1946-1971." E. David Cronon, professor emeritus, history and John Jenkins, researcher, UW History Project. Tripp Commons, Memorial Union, 11:45 a.m.

LANDSCAPE FOR LEARNING

"The Campus as Classroom and Laboratory." David Eagan, Institute for Environmental Studies; Evelyn Howell, Department of Landscape Architecture and Ann McLain, Center for Limnology. Union South (TTTU), noon.

27 Saturday

HEBREW AND SEMITIC STUDIES

"The Formation of Jewish National Identity: The Role of Hebrew Literature." Also March 28. Pyle Center. For a complete schedule, call 262-3204.

April

6 Tuesday

LANDSCAPE FOR LEARNING

"Campus Management and the Environment." David Drummond, Safety Department and Daniel Einstein, Environmental Management Program. Union South (TTTU), noon.

10 Saturday

FRENCH AND ITALIAN PRESENCE IN WISCONSIN

A conference focusing on French and Italian culture in the history of Wisconsin and the University of Wisconsin. State Historical Society. Information: 262-3941.

13 Tuesday

LANDSCAPE FOR LEARNING

"Visions of the Built Campus." Bruce Braun, Facilities Planning and Management; John Harrod, Physical Plant; and Lori Kay, Transportation Services. Union South (TTTU), noon.

20 Tuesday

LANDSCAPE FOR LEARNING

"Visions of the Natural Campus." Greg Armstrong, Arboretum; Cathie Bruner, Campus Natural Areas; Robert Hendricks, Campus Planning and Robert Ray, Campus Natural Areas Subcommittee. Union South (TTTU), noon.

11TH ANNUAL INSTITUTE ON AGING COLLOQUIUM

Sessions presented by UW-Madison faculty and researchers on a wide variety of recent aging studies. The Pyle Center. Information: 262-1818.

DIVERSITY IN TEACHING LAW

A symposium celebrating the 25th anniversary of the William H. Hastor Program, which provides fellowships and academic support to talented minority lawyers planning to teach law. April 23-24. Information: 265-2804, or e-mail: phollen@facstaff.wisc.edu.

LANDSCAPE FOR LEARNING

"The Campus as a Learning Environment." Daniel Einstein, Environmental Management Program; Evelyn Howell, Department of Landscape Architecture; and Thomas Yuill, Institute for Environmental Studies. Union South (TTTU), noon.

Wisconsin ideas

La Follette Institute revives brainstorming between legislators and faculty

A great tradition was revived this month as part of the Chancellor's Initiative.

The La Follette Institute Policy Forums returned March 3 when a small group of faculty, staff and students met over dinner with interested legislators to discuss information technology policy, including issues of electronic commerce, archival retrieval and privacy.

Legislators attending were Sens. Jon Erpenbach, Brian Rude, Kim Plache and Bob Jauch; and Reps. Marlin Schneider, Dave Hutchison and Phil Montgomery. Faculty were Dennis Dresang from political science and the La Follette Institute; Louise Robbins, director of the School of Library and Information Studies (SLIS); Douglas Zweizig, also of SLIS; and Raj Veeramani of engineering and the Consortium for Global Electronic Commerce. La Follette staff and one student also attended.

The informal dinners and discussions were a major link between the Capitol and the university in the late 1980s, but were interrupted by changing priorities at the Legislature and on campus. Chancellor David Ward revived them as part of his new legislative outreach initiative.

"The dinners are an attempt not just to discuss government, but to discuss policy and the public good," says Kettl. "They help remind us that politics, as Aristotle believed, was humankind's highest calling and focused on one thing:

the improvement of society."

Kettl says other similar forums and their topics are being planned.

The forums are part of Chancellor Ward's effort to strengthen the Wisconsin Idea by having the university expand and redefine its service to the state.

Other parts of the Chancellor's Initiative, assisted by the La Follette Institute, have included:

- Orienting newly elected legislators in January.
- Sponsoring a brown-bag series on ethics in February and March held downtown for legislative and agency staff.
- Issuing a series of papers and research on major topics facing the university in the next 20 years.

Kettl presented one of those papers at a recent Roundtable discussion and condensed it for publication as a column published in state newspapers.

The initiative is also looking for innovative ways to serve the Legislature, Kettl says. For example, he says the La Follette Institute is pairing legislators with faculty and staff throughout the university, following a survey of all legislative committee chairs on vital concerns and issues.

And the institute is looking into ways to prepare audiotapes and compact discs on important issues for legislators to use on their trips across the state. ■

Immediately

5/5/72 jb

BUILDING NAMES

MADISON--Two new buildings on the University of Wisconsin-Madison campus were named Friday by UW regents in honor of two recently deceased faculty members--one a renowned leader in the fight against mental retardation, the other a zoologist widely esteemed for his teaching.

The \$7.1 million Harry A. Waisman Mental Development Center at Marsh Lane and University Bay Drive will be part of the planned Center for Health Sciences on the west end of the campus. It will include treatment, research, and training facilities as well as a school for mentally retarded children operated by the Madison Public School System. Its research facilities will include a one million-volt microscope, one of seven in the world and the first on a university campus.

The University's new Lowell E. Noland Zoology Building, at the corner of N. Mills and W. Johnson streets, will honor a teacher who served on the faculty for 46 years. He died Jan. 3, 1972. The facility will provide classroom and special equipment rooms for ecology, cytology, zoology, developmental biology, physiology, and microtechnique departments, as well as shop areas, offices, and storage and service space.

A native of Milwaukee, Dr. Waisman was both a physician and biochemist who held four UW degrees. He died in March, 1971, at the age of 58.

Dr. Waisman's areas of specialty were hereditary diseases and chemical causes of mental retardation. He developed the PKU test to detect potential for mental retardation in newborn babies and enabled its prevention in some cases.

Add one--building names

He joined the Wisconsin faculty in 1950.

Born in 1896 in Lee, Ind., Prof. Noland received his bachelor's degree from DePauw University in 1917 and his UW Ph.D. in 1924.

For years he taught courses in introductory biology and invertebrate zoology. He launched biology courses in the Integrated Liberal Studies program, and sat with freshmen and sophomore students in their classes to better integrate his lectures in the ILS sequence.

Prof. Noland served as chairman of the zoology department from 1945 to 1958 and retired as emeritus professor in 1966.

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uw news

From The University of Wisconsin-Madison / University News and Publications Service, Bascom Hall, Madison 53706 / Telephone: (608) 262-3571

Immediately

1/14/72 mcg

Release:

MADISON--The Women's Service Club of the University of Wisconsin-Madison will formally present five works of art to University Children's Hospital Tuesday in the name of the late (Dr. Harry Waisman,) for 20 years a member of the pediatrics staff.

A reception and open house for members and guests will be held in room 133 beginning at 4 p.m. to display the works, which include five woodcuts by Philadelphia artist Helen Siegl and a framed reproduction of Renoir's "In the Nursery."

The Siegl woodcuts, to hang in the lobby of Children's Hospital, include "Cake Walk," "Omega," "Merry-go-round," "Guardian," and "Carrot Top," and are all pictures of children and animals. The Renoir work hangs in the parents' lounge of the hospital.

Dr. Waisman, who died in March of 1971 at the age of 58, was noted for his research in mental retardation and his battle against cancer and leukemia in children. According to Anne Terrio, one of the founders in 1953 of the Women's Service Club, and currently Children's Hospital service chairman, it was he who inspired the club to begin giving the hospital the extras "that help to make a sick child happy--and thus speed his recovery." The club enlarged its services to children in 1959 to include those at Central Colony.

In addition to such items as an orthopedic stroller, rocking horse, cuckoo clock, radio, hair-dryer, and rocking chairs for visiting or volunteer mothers, the club has contributed recreational equipment to Central Colony, and an aquarium to Children's Hospital in memory of the late Pres. C. A. Elvehjem.

NEWS

OF THE UNIVERSITY OF WISCONSIN

From University Relations, 1752 Van Hise Hall, Madison 53706

Release:

Immediately

12/17/71 ca

GIFTS AND GRANTS

MADISON--More than \$7.7-million dollars in gifts, grants, and contracts for student aid, instruction, research, and extension work throughout the University of Wisconsin system were accepted by the regents Friday.

More than half of the total will go for research support, and more than half came from various federal agencies.

Of the total, \$398,639 will support programs on former Wisconsin State Universities campuses, \$7,333,612 on former UW campuses.

In addition to the cash grants a wide range of gifts in kind were accepted by the regents: music for the department of music, rocks, and minerals for the department of geology at UW-Eau Claire; a mare, saddle, bridle, and halter for UW-Platteville; two looms for home economics at UW-Stout; books, scientific papers, costumes, meat products, and two valuable art works for UW-Madison; more books for the UW-Center System campus libraries; three computer-based guidance programs, an automobile to be used in the clean air car project, books, journals, scientific and technical materials for UW-Milwaukee.

For the Waukesha County campus the regents received a number of photographs including one by Pres. John C. Weaver.

Two scholarship funds honoring the memory of deceased UW-Madison faculty members were set up with gifts received: one for the late Madison campus dean of students W. Eugene Clingan, the other for the late (Dr. Harry A. Waisman).

uw news

From The University of Wisconsin News and Publications Service, Bascom Hall, Madison 53706 • Telephone: (608) 262-3571

Release:

Immediately

11/24/70

By DAVID EDEANI

MADISON--Mental retardation, though still a major national health hazard, is no longer an insurmountable problem. Some forms can now be cured and, what is more, can be prevented, a University of Wisconsin researcher contends.

"There are now methods of treatment," says Prof. Harry A. Waisman of the UW Medical School, "which can prevent mental retardation in some inborn metabolism errors if diagnosis is made early...Many children with mild or severe retardation can be effectively helped during the first few months or first year of life."

He heads a team of research scientists in the Joseph P. Kennedy Jr., Laboratories in Madison. They are trying to identify and analyze some causes of mental retardation.

From their intensive studies, which began several years ago, the scientists say they now understand why retardation results from a disease called phenylketonuria (PKU). Dr. Waisman says this inheritable disease causes retardation because the victim's blood contains an excessive amount of a substance called phenylalanine--an amino acid necessary for the normal development of the human organism. The substance contributes to normal growth only when the blood contains just the right amount.

Children with PKU must receive a special diet containing only a small amount of this amino acid, if they are to be successfully guarded. The diet usually starts after the baby has had an adequate milk intake--between the fifth and the seventh days after its birth.

Add one--Mental Retardation

The scientists' main task now is to find out why some people have too much amino acid in their systems. They are attacking the problem from many angles.

While Dr. Waisman concentrates on the intricate functioning of amino acids, a second member of the team, Dr. Theo Gerritsen, studies various abnormal chemicals in the human body. A third member, Dr. Frank L. Siegel, is in charge of experiments to discover how various amino acids affect brain development.

While PKU is an inheritable cause of mental retardation, it is not the only one. Others range from the metabolic to the acquired, such as brain inflammation and infections. But Dr. Waisman and his associates feel that PKU is about the most difficult to treat once the brain has matured. Early diagnosis and prompt treatment are, therefore, essential.

He says things like poor nourishment and premature births also contribute to most milder forms of retardation. In fact, he feels that "prematurity is probably one of the most common causes of the minimally brain damaged and mentally retarded child, and more than 50 per cent of prematures do have some degree of developmental retardation."

Dr. Waisman says one of the most serious obstacles to successfully preventing inheritable mental retardation is prematurely discharging newborn babies from hospitals before those destined to inherit PKU can be identified. Such premature discharge is made when the child has not had enough milk intake to enable the doctor to get meaningful results from tests for the disease in accordance with legal requirements.

A Wisconsin law requires all newborn babies be tested in the hospital before they are discharged. But in most cases, the test is given about three days after the baby's birth, which is too early.

Add two--Mental Retardation

Dr. Waisman urges that the law be modified to specify the appropriate period within which the test should be performed. "The best medical supervision requires that the child be tested again at the end of the second and at the fourth week of age" when it is usually much easier for the doctor to detect the disease.

The National Institute of Child Health and Human Development has made a grant of \$176,000 to the research team, and proposes an increase in the award to \$588,705 later.

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uw news

From The University of Wisconsin News and Publications Service, Bascom Hall, Madison 53706 • Telephone: (608) 262-3571

Release: **Immediately**

5/26/70 em

Contact: **Elizabeth Martin**
Primate Research Center 262-3844

KENOSHA, Wis.--Amino acids may sound like part of the drug scene, but they are actually an essential element for the production of all proteins in the human body.

Disorders in the amino acid system can result in a bad trip since nearly all of the approximately 25 amino acids have been related to some form of mental retardation.

The relationship between mental retardation and amino acid disorders was reported by Dr. Harry A. Waisman, director of the Joseph P. Kennedy Laboratories at the University of Wisconsin Medical Center, Madison, to the Symposium on Biochemistry of Brain and Memory at UW-Parkside Monday.

One such disorder is phenylketonuria or PKU, an hereditary biochemical disorder.

"It is estimated that between 250 and 350 children are born each year with PKU," stated Dr. Waisman. "About 40 states now have laws to test newborns for PKU, but in spite of the publicity, only about 100 new cases are reported each year."

If a baby is diagnosed as having PKU and immediately placed on a special low phenylalanine diet for approximately six years, the child will be normal or near normal intellectually. Without the diet the child will be retarded.

Add one--amino acids

Dr. Waisman and Dr. George R. Kerr of the Wisconsin Regional Primate Research Center in Madison have successfully reproduced the chemical counterpart of phenylketonuria by feeding pregnant rhesus monkeys high phenylalanine diets before and during pregnancy. Amino acids were actively transported across the placenta, resulting in even higher concentrations in the fetal blood. After birth these infant monkeys showed deficits in learning.

It was originally surmised that the placenta protects the fetus. Surprisingly enough, the maternal biochemical abnormality was magnified by the normal placental process, resulting in an even greater abnormality in the infant.

The same thing has been reported in humans. When a woman with PKU becomes pregnant, the excessive phenylalanine in her blood also crosses the placenta at a more concentrated level, damaging the brain of the developing fetus. The child is then born retarded.

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uw news

From The University of Wisconsin News and Publications Service, Bascom Hall, Madison 53706 • Telephone: (608) 262-3571

Release: **Immediately**

6/8/67 jb

MADISON--Three staff members of the University of Wisconsin Regional Primate Research Center in Madison will participate in the conference called by the National Institute of Child Health and Development at Boulder, Colo., next week.

Dr. H. A. Waisman, professor of pediatrics and director of the Joseph P. Kennedy Jr. Laboratory, will deliver a key address titled "A Pediatrician's View."

Scheduled to be discussants are Dr. Margaret K. Harlow, lecturer in the department of educational psychology and consulting editor of The Journal of Comparative and Physiological Psychology, and Dr. J. W. Davenport, associate professor of psychology and assistant director of the center.

Dr. Harlow has studied the effects of early rearing conditions on the social and intellectual development of the rhesus monkey.

Dr. Davenport is studying the interaction of emotion and learning in monkeys and rats and comparing the two species for differences and similarities. In addition, he is organizing a research program to investigate the relationship between learning and thyroid function.

With Dr. G. R. Kerr of the department of pediatrics, Dr. Waisman has studied brain development and the influence of amino acid metabolism in monkeys. He also has surveyed the relationship between malnutrition and mental retardation in the infant monkey.

Researchers from centers, universities, and colleges will explore ways at the conference to learn how monkeys may serve as models for human research.

The institute is a division of the National Institutes of Health.

U.W. NEWS

From The University of Wisconsin News and Publications Service, Observatory Hill Office, Madison 53706

Telephone (Area Code 608) 262-3571

Release:

5/3/65 cs

Immediately

MADISON, Wis.--A new metabolic error which may cause mental retardation has been identified by scientists at the University of Wisconsin Medical Center.

Dr. Theo Gerritsen and Dr. Harry A. Waisman, director of the Joseph P. Kennedy Jr. Laboratories for Research in Mental Retardation, described the disease at a recent meeting of the Federation of American Societies for Experimental Biology.

They called the disease Hypersarcosinemia because the amino acid sarcosine is present in the blood in large amounts. Drs. Gerritsen and Waisman have suggested that the metabolic disease is caused by the body's inability to break down sarcosine.

The disease was discovered in a slightly retarded one year old child who excreted large amounts of sarcosine in his urine and had high sarcosine levels in his blood.

Further investigations showed that another child in the same family was also affected with Hypersarcosinemia. Dr. Waisman said that the affliction of two children in the same family indicates that this metabolic error is not accidental but hereditary.

According to Dr. Gerritsen, sarcosine, which is related to the building blocks that make up proteins (the necessary constituents of the body) is not generally present in the urine or blood of a normal child.

Add one--Drs. Gerritsen and Waisman

The parents and four children were given tests to determine which enzymes were involved in the bodies of these children. Sarcosine excretion and blood level could be increased by oral loads of sarcosine and DMG, a precursor of sarcosine. In the two children not affected by the disease, no increased sarcosine excretion was found, said Dr. Waisman.

As yet, no cause for the retardation is known. Drs. Gerritsen and Waisman are not sure of the genetics of the parents of the affected children. Future investigation with the use of radio-isotopes is expected to solve these problems, said Dr. Waisman.

This research is being supported by grants from the National Institute of Health and the Joseph P. Kennedy Foundation.

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U.W. NEWS

FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON, WISCONSIN 53706

2/2/65 hd

RELEASE:

Immediately

MADISON, Wis.--The Joseph P. Kennedy Jr. Foundation has provided \$20,000 to the University of Wisconsin to help develop an application for federal support of a proposed University-wide mental retardation center.

The grant was announced Tuesday by UW Pres. Fred Harvey Harrington.

The application would seek federal funds under Public Law 88-164. This provides funds for construction of buildings to house clinical and research projects of distinguished scientists working in mental retardation.

The center would bring together existing programs from many areas of the University. Two such programs are Dr. Harry Waisman's work in the Joseph P. Kennedy Jr. Laboratories and the Training Center in Mental Retardation sponsored by the Vocational Rehabilitation Administration.

In addition, the center would offer diagnosis, treatment, and out-patient services. An experimental laboratory school would provide research opportunities and training programs for professional personnel.

An executive committee headed by Prof. Rick Heber of the School of Education is developing programs, research projects, and architectural groundwork. Other members of the committee are Prof. Harry Harlow, director of the Primate Research Center; Martin B. Loeb, professor of social work; Prof. Clinton Woolsey, neuro-physiology department director; Prof. Francis M. Forster, neurology department chairman; Wallace Lemon, assistant to the vice president; James L. Olson, associate professor of exceptional education at the University of Wisconsin-Milwaukee; Harry Waisman, professor of pediatrics; and Patrick J. Flanigan, executive secretary of the committee.

-more-

Add one--Kennedy Foundation

In addition, a University-wide 26-member committee representing all interested departments is working in three task-force groups: Administrative and General Planning; Clinical Center and Biological Research; and Bio-Behavioral, Education, and Social Research.

Prof. Heber, who is also director of the VRA Training Center in Mental Retardation, said that the University was being considered for the new center because of its unique combination of resources.

"The University's record of research commitment and achievement in mental retardation is unmatched in the country," he said. "And Wisconsin has a tradition of close cooperation between university, state, and community resources."

As an example Prof. Heber mentioned the existing cooperative research efforts of the Central Wisconsin Colony and Training School and various departments of the University and its Medical School.

The legislation providing for the establishment of centers such as the University is applying for is an outgrowth of President Kennedy's Panel on Mental Retardation. President Kennedy was responsible for stimulating a heightened interest in mental retardation legislation on a federal level.

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U.W. NEWS

FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON, WISCONSIN 53706

RELEASE:

6/19/64 mk

Immediately

MADISON, Wis.--Nine outstanding experts on the problems of educating the handicapped will lecture at a summer symposium scheduled for the University of Wisconsin Madison campus June 25 to Aug. 5.

The symposium will acquaint workers in special education and related fields with a broad range of expert knowledge on the medical, biochemical and psychiatric aspects of retardation and physical disability. The symposium is sponsored jointly by the UW Office of Special Education and the State Bureau for Handicapped Children.

LeRoy Aserlind Jr. of the UW Office of Special Education, symposium coordinator, said the program is "unprecedented in the field of special education, bringing together highly respected investigators in every phase of handicap research."

Among the UW experts participating in the symposium will be Dr. Milton Bessire, to lecture twice on the pediatric aspects of retardation; Dr. Martin Fliegle, on the dynamics of treatment for emotionally disturbed children; Dr. Harry Waisman, on the biochemical aspects of retardation; Dr. Charles Taborsky, on hearing loss; Dr. Harry Bouman, on psychiatric care for the handicapped; Dr. Elmer Johnson, on the medical aspects of blindness; Dr. Louis Ptacek, on genetic factors in retardation; and Dr. William Buzogany, on treatment and education for emotionally disturbed adolescents.

Also taking part in the symposium will be Dr. Lucille Glichlich of the Children's Hospital, Milwaukee.

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U.W. NEWS

FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON, WISCONSIN 53706

4/16/64 jb

RELEASE: Immediately

MADISON, Wis.--A series of scientific meetings will mark the official opening of the University of Wisconsin's new Regional Primate Research Center in Madison April 27-28.

Completed several months ago, the center, the second in the country financed by U.S. Public Health Service grants, makes possible a broad range of interdisciplinary research, entering into such University departments as medicine, psychology, pathology, biochemistry, and endocrinology.

The structure, located at the corner of North Orchard Street and Capitol Court, is a four-story windowless brick research tower with a two-story glass and precast decorative concrete panel administration wing. It cost \$1.2 million to build.

The first day will be given over to a tour of the new facilities and to two programs, one devoted to the center's behavioral research efforts, the other to its biomedical work and studies.

Participants, all members of the UW faculty, will include Profs. Harry F. Harlow, center director; Harry A. Waisman, pediatrics; James R. Allen and Julian L. Van Lancker, pathology; Richard C. Wolf, physiology; and project associates John W. Davenport, Vincent J. Polidora, and Robert E. Bowman.

Meetings of the Primate Research Study section, the Primate Center Directors' group, and the Wisconsin Regional Primate Research Center external advisory committee have been arranged for April 28. All meetings will be held at the Wisconsin Center.

-more-

Add one--Primate Center

Guests at the opening will include these National Institutes of Health (NIH) officials: Drs. Frederick Stone, chief of the division of research facilities and resources; Willard H. Eyestone, chief of the animal resources branch; and Joe R. Held, animal resources office.

The research center is a short block away from the University's Primate Laboratory, the first of its kind in the country when begun in 1940. Together the buildings house 700 rhesus monkeys available for research purposes. A Vilas Park holding facility is expected to be completed before July 1, this to expand the primate population by another 160.

The NIH also provided the first center, erected at the University of Oregon two years ago.

In the process of construction are additional regional primate centers at the University of Washington, Emory University, Tulane University, Harvard University, and the University of California at Davis. All are expected to be in operation by 1965.

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WIRE NEWS

FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON, WISCONSIN 53706

4/24/64 jb

RELEASE:

Immediately

MADISON, Wis.--Three top officials of the National Institutes of Health will participate in the formal opening of the University of Wisconsin's new Regional Primate Research Center in Madison Monday and Tuesday (April 27-28).

Guests will include Drs. Frederick Stone, chief of the NIH division of research facilities and resources; Willard H. Eyestone and Joe R. Held, of the animal resources office.

Other participants in a series of scientific meetings will include [Profs. Harry A. Waisman, pediatrics; Harry F. Harlow, center director; James R. Allen and Julian L. Van Lancker, pathology; Richard C. Wolf, physiology; and project associates Robert E. Bowman, John W. Davenport, and Vincent J. Polidora, members of the UW faculty.

The center, completed several months ago, is located at the corner of Capitol Court and North Orchard Street. It consists of a four-story brick research tower joined to a two-story glass and precast concrete panel administration wing. It cost \$1.2 million to build, and was financed by U.S. Public Health Service grants.

Monday will be given over to a tour of the new facilities and to the meetings, one devoted to the center's biomedical work, the other to behavioral research efforts. A news conference has been arranged for 1:30 p.m. in Room 209 of the center.

The Primate Research Study section, the Primate Center Directors' organization, and the Wisconsin Regional Primate Research Center external advisory committee will hold separate sessions on Tuesday, also at the Wisconsin Center.

Add one--Regional Primate Research Center

The new center is adjacent to the University's Primate Laboratory, famous for its research findings during the past 24 years. Together the buildings house 700 rhesus monkeys available for research purposes. This figure will be increased to 860 before next fall.

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U. W. NEWS

FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON 6, WISCONSIN

11/20/63 jb

RELEASE:

Immediately

MADISON, Wis.--U.S. Sen. Edward M. Kennedy (D-Mass.), here for the dedication of the Joseph P. Kennedy Memorial Laboratories in the University of Wisconsin Medical Center, said "at long last we are starting to push ahead the horizons of medical knowledge in the field of mental retardation."

The federal government, he said, is leading the assault on overcoming problems which have afflicted the country for two centuries, and "now we have a chance to do something for those we have neglected for so long."

Also representing the Kennedy family at a luncheon in Great Hall of the Wisconsin Union was R. Sargent Shriver, director of the Peace Corps, and brother-in-law of the senator.

The newly-constructed laboratories were built with support of a \$255,000 grant from the Kennedy Foundation and additional grants from the National Institutes of Health and the Wisconsin Alumni Research Foundation.

Sen. Kennedy declared:

"I am most impressed by the mental retardation program established at the University of Wisconsin. This dedication event is one of tremendous significance.

"When you speak of mental retardation, which is investigated at the laboratories here, you are entering into one of the nation's most critical, most costly problems. More than one of every four beds in state institutions are occupied by victims of mental retardation.

"This is not a hopeless disease, just a condition symptomatic of a number of illnesses usually begun at birth. With effective research and treatment, mental retardation no longer has to be the scourge it once was."

-more-

Add one--Kennedy Lab

Shriver said the University of Wisconsin "certainly is making an important contribution to the national problem of mental retardation."

UW Pres. Fred Harvey Harrington said the Kennedy Laboratories "show how we are able to combine our sources of basic support into research and public service, making our mission to Wisconsin people possible."

Gov. John W. Reynolds said the people of Wisconsin appreciate the interest the Kennedy family has taken in problems of mental retardation "which shows appreciation of the work of the Wisconsin Medical Center, the understanding of one of our biggest problems."

A telegram from Pres. Kennedy stated: "My hope is that through this new facility and others like it the causes of mental retardation will be discovered and ways to overcome it brought to those in need."

The dedication day program also included a scientific seminar on "Medical Aspects of Mental Retardation." Speakers included Drs. Richard L. Masland, director of the National Institute of Neurological Diseases and Blindness, Washington, D.C.; Julius B. Richmond, Upstate New York Medical Center, Syracuse; Harry A. Waisman, UW Medical School and director of the Kennedy Laboratories; and Theo Gerritsen, David W. Smith, and Raymond C. Chun, UW Medical School pediatric staff.

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U. W. NEWS

FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON 6, WISCONSIN

11/19/63 eh

RELEASE:

Immediately

(With dedication of Kennedy Laboratories)

MADISON--In the battle against mental retardation, researchers have been paying increasing attention to the chemical causes of brain damage.

One of the many research efforts around the United States, and one of several efforts at the University of Wisconsin Medical Center, is headed by Dr. Harry A. Waisman, professor of pediatrics and director of the new Joseph P. Kennedy Jr. Memorial Laboratories. The laboratories were dedicated Wednesday (Nov. 20) with members of the Kennedy family present.

Dr. Waisman is directing a long-term study of the biochemistry of mental retardation, supported in part by a \$255,000 grant from the Kennedy Foundation. The aims of the project are to understand the chemical causes of mental retardation and to develop methods of prevention.

Dr. Waisman's research has centered on those diseases which produce mental retardation. Two new diseases have been found by Dr. Waisman's group.

They have names related to the amino acids, the building blocks which make up the proteins found in the foods we eat. They are called homocystinuria and dibydroxyphenylalanine (DOPA).

Homocystinuria, a sulfur containing amino acid, was found last year by Dr. Waisman and Dr. Theo Gerritsen, a Kennedy Scholar.

In analyzing the urine of a mentally retarded child, they found excessive amounts of this chemical which is not detected in the urine of normal children.

The two children who showed DOPA in the urine are the only two known cases of this disease.

Add one--research

According to Dr. Waisman, there are 15 known cases of homocystine secretion, both here and in Great Britain, where Dr. Waisman's and Dr. Gerritsen's findings have been confirmed.

A third disease, found in Canada in 1959, and also due to inborn errors of metabolism is called histidinuria. There are 14 known cases in this country, three in Wisconsin.

Children with histidinuria usually have a speech impediment, but are otherwise normal in intelligence. Only one Wisconsin child was found to be mentally retarded.

Dr. Waisman said as he and his associates in the Kennedy Laboratories find new substances in the urine of mentally retarded children, an attempt is made to analyze the urine of every child and adult in the state's Northern, Central, and Southern colonies for the mentally retarded.

A program initiated in 1957 for detection of phenylketonuria (PKU), one of the first diseases found to be an inborn error, has uncovered more than 20 new cases. Children who are diagnosed early enough can develop normally if put on a special low-phenylalanine diet. Phenylalanine is a chemical which cannot be properly utilized by those PKU patients with the abnormal metabolism.

This year, under Dr. Waisman's supervision, a medical motion picture was produced to show physicians how to spot PKU babies.

Dr. Waisman joined the UW faculty in 1952. Prior to that, he was on the staff of the University of Illinois College of Medicine.

Born in 1912 in Milwaukee, Dr. Waisman holds four UW degrees--the B.S. (organic chemistry) in 1935, M.S. (biochemistry) in 1937, Ph.D. (biochemistry) in 1939, and M.D. in 1947. He completed his internship in 1948, and his residency in pediatrics in 1959. He is married and has three children.

Dr. Waisman's earlier studies concerned vitamins and nutrition, many done in collaboration with the late UW Pres. Conrad A. Elvehjem.

Add two--research

Other researchers associated with Dr. Waisman in the Kennedy Laboratories include:

Dr. Phyllis Berman, assistant professor of educational psychology, who has been conducting a follow-up study of the development of the child treated for PKU in comparison with his siblings who do not have PKU.

Dr. Theo Gerritsen, assistant professor of pediatrics and physiological chemistry. Dr. Gerritsen was born in the Netherlands and earned his doctor of science degree from the University of Utrecht in 1951.

Dr. George R. Kerr, assistant professor of pediatrics and a research associate in the UW Primate Laboratory. He was born in Winnepeg, Canada, and received his M.D. degree from Dalhousie University in Halifax, Nova Scotia.

Dr. Vincent J. Polidora, a project associate in the UW Primate Laboratory. He is studying the behavioral effects of PKU in rats and monkeys. He earned his Ph.D. in psychology from Ohio State University in 1959.

Mrs. Patricia B. Swan, research assistant, expects to receive her Ph.D. degree in nutrition this January from the School of Home Economics. She earned her B.S. from the University of North Carolina and her M.S. from Wisconsin.

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WIRE NEWS

FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON 6, WISCONSIN

11/18/63 eh

RELEASE:

Immediately

MADISON--Gov. and Mrs. John W. Reynolds, Atty. Gen. George Thompson, State Treas. Dena Smith, and three members of Pres. John F. Kennedy's family will be among 130 guests attending a luncheon in the Wisconsin Union Wednesday (Nov. 20) as part of the dedication of the recently opened Joseph P. Kennedy Jr. Memorial Laboratories.

Members of the President's family attending the luncheon will be his brother-in-law and sister, Mr. and Mrs. R. Sargent Shriver, and Sen. Edward M. Kennedy (D-Mass.), who will deliver a short address. With the Kennedy family will be Dr. George A. Jervis, research director of the Kennedy Foundation.

Also invited to the luncheon in Great Hall are public officials, members of the State Senate and Assembly, University of Wisconsin regents, and representatives of organizations interested in the problem of mental retardation.

Brief remarks will be made by UW Pres. Fred Harvey Harrington, Dr. Harry A. Waisman, director of the Joseph P. Kennedy Jr. Memorial Laboratories; Medical School Acting Dean James F. Crow; Gov. Reynolds, and Mr. and Mrs. Shriver. Shriver is director of the Peace Corps.

After the luncheon, a scientific symposium on "The Medical Aspects of Mental Retardation" will be held in the Wisconsin Center. Six scientific papers reporting research into the problems of mental retardation will be read.

The Kennedy family members are scheduled to arrive at Truax Field by commercial airliner at 10:11 a.m. After arrival on the campus, they will tour the Kennedy Laboratories in the Children's Hospital at the UW Medical Center. They will meet researchers and Kennedy scholars to hear of current Wisconsin research on brain metabolism and mental retardation.

Add one--Kennedys' visit

The newly constructed Kennedy Laboratories were built with support of a \$255,000 grant from the Kennedy Foundation and additional grants from the National Institutes of Health and the Wisconsin Alumni Research Foundation.

Following the noon luncheon and scientific symposium at 2:15 p.m., members of the Kennedy family are to be the guests of Gov. and Mrs. Reynolds at the governor's mansion.

The Kennedy Foundation was established 17 years ago by Joseph P. Kennedy, former ambassador to Great Britain and father of the President, as a memorial to his eldest son, who was killed during World War II.

##

EDITORS: A news conference for the Kennedy family members has been scheduled for about 1:30 p.m. in the Blue Room or main lounge of the Wisconsin Center. They are scheduled to arrive on North Central Flt. 573.

--Edward Hawley
Public Information Office
U.W. Medical School
262-1725

U. W. NEWS

FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON 6, WISCONSIN

11/14/63 eh

RELEASE:

Immediately

MADISON, Wis.--A visit by three members of Pres. John F. Kennedy's family and a scientific symposium will mark dedication of the newly constructed Joseph P. Kennedy Jr. Memorial Laboratories at the Children's Hospital in the University of Wisconsin Medical Center Wednesday (Nov. 20).

The laboratories investigate mental retardation.

Planning to come to Madison are Sen. Edward M. Kennedy (D-Mass.) and Mr. and Mrs. R. Sargent Shriver. Mrs. Shriver--the former Eunice Kennedy--is the President's sister, and Shriver is director of the Peace Corps. Accompanying the group will be Dr. George A. Jervis, research director of the Kennedy Foundation.

The Kennedy Foundation was established 17 years ago by Joseph P. Kennedy, former ambassador to Great Britain and father of the President, as a memorial to his eldest son who was killed during World War II.

In 1961, the Kennedy Foundation gave the Medical School \$255,000 to help establish a laboratory for research in mental retardation. The National Institutes of Health also granted \$110,000 and the Wisconsin Alumni Research Foundation contributed \$25,000 for the project.

Dr. Harry A. Waisman, professor of pediatrics, is director of the laboratories.

A noon luncheon will be held at the Wisconsin Union. In attendance will be public officials and members of the University administration. Sen. Kennedy, president of the Kennedy Foundation, will speak.

Add one--Kennedys

Beginning at 2:15 p.m., members of the Kennedy family will represent the foundation at a special symposium in Wisconsin Center on the "Medical Aspects of Mental Retardation."

Physicians from Wisconsin and northern Illinois have been invited to attend.

In the morning, the Kennedy family members will tour the laboratory facilities. They will meet researchers and Kennedy scholars who will describe research now in progress at Wisconsin on brain metabolism and mental retardation.

Research against mental retardation in the laboratories is carried on in four main ways:

1. Researchers try to discover the reason for mental retardation in children by using modern biochemical methods for analysis of blood and urine;
2. Certain causes of retardation are produced in monkeys to gain some idea of what might be happening in the brain of retarded children;
3. Retardation is also produced in rats to find new evidence or diseases which cause brain damage; and
4. Studies are underway to investigate the fundamental biochemical metabolism of the brain.

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U. W. NEWS

FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON 6, WISCONSIN

2/8/63 jeb

RELEASE:

Immediately

MILWAUKEE, Wis.--(Dr. Harry A. Waisman,) professor of pediatrics at the University of Wisconsin Medical School, was appointed to additional duties as director of the new Joseph P. Kennedy Jr. Memorial Laboratory on the Madison campus by the UW Board of Regents Friday.

In other medical personnel actions, the regents appointed Gordon A. Dixon, University of Toronto biochemist, as associate professor of medical genetics; and granted Dr. Theodore C. Erickson, surgery, leave of absence Jan. 1 - Dec. 31, 1963, for reasons of health.

Dr. Waisman will have complete administrative responsibility for the new Kennedy Laboratory, an intimate functioning unit of the pediatrics department.

Dr. Waisman has been directing a long-term study of the biochemistry of mental retardation. The aims of the project, supported in part by a \$225,000 Kennedy Foundation grant, are to understand the chemical causes of mental retardation and develop methods of prevention.

Next summer the entire research project will move into the Kennedy Laboratory, now being built as an additional floor atop the Children's Hospital. The Kennedy Foundation contributed one quarter of its grant to construction costs. Working with Dr. Waisman in the new laboratory will be Drs. Theo Gerritsen and Dallas Boggs, both Kennedy Scholars; Dr. Jean Marsh, research associate; and Dr. Arne Haavik, postdoctoral fellow.

Add one--medical personnel

Dr. Waisman's research has centered around hereditary diseases which produce mental retardation. In one such disease, phenylketonuria (PKU), he found that affected children who are diagnosed early enough can develop normally if put on a special low-phenylalanine diet.

In 1957, Dr. Waisman initiated such a treatment program throughout Wisconsin. Thus far, he has succeeded in preventing 20 affected Wisconsin children from becoming retarded. This year, under his supervision a medical motion picture was produced to show physicians how to spot PKU babies.

Dr. Waisman, who is now trying to develop other means of identifying biochemical causes of mental retardation, joined the UW faculty in 1952. Prior to that, he was on the staff of the University of Illinois College of Medicine. Dr. Waisman holds four UW degrees -- the B. S. in 1935, M. S. in 1937, Ph.D. in 1939, and M.D. in 1947.

Dr. Dixon, a native of the Union of South Africa, received his B.A. from Cambridge University in 1951, and his Ph.D. from the University of Toronto in 1956. He has been a biochemical researcher on the staffs of the University of Washington, Oxford University, and the University of Toronto.

He collaborated with UW medical geneticist Oliver Smithies and another Toronto biochemist in their recent analysis of the structure and evolution of certain blood proteins.

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U. W. NEWS

FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON 6, WISCONSIN

4/17/63 jeb

RELEASE:

In PMs of Saturday, April 20

(ADVANCE FOR PMs OF SATURDAY, APRIL 20)

By JANE BRODY

ATLANTIC CITY, New Jersey--Mentally retarded monkeys and rats are helping University of Wisconsin medical researchers understand what causes retardation in humans.

The scientists, who reported on their work at the Federation of American Societies for Experimental Biology meeting, April 20, explain that by mimicking the disease in animals, they gain an experimental and economic advantage in studying the biochemical nature of the defect and devising effective therapies.

When these goals are achieved in animals, the findings may then be applied to humans. The research is part of a long-term Wisconsin study of the biochemical causes of mental retardation.

Thus far, research on the retardation-producing hereditary disease, phenylketonuria (PKU), is furthest along. PKU, and the other diseases the scientists are studying, reflect metabolic difficulties which probably result from genetic errors.

Body metabolism works something like an automatic assembly line. Substances pass from one point to the next, with changes or additions made at each stop. If a block occurs at one point, the substance coming to it piles up. In the body, these excesses either overflow directly into the blood and urine or are broken down by another method which means some new, unusual substance is excreted.

"These excess or unusual chemicals probably interfere with the normal functioning of brain tissue cells which control electric responses between nerves," Dr. Harry Waisman, professor of pediatrics and director of the University's Joseph P. Kennedy Jr. Memorial Laboratory, says. The result: a mentally retarded child.

Add one--mental retardation

Most cases of mental retardation are genetically caused. Genes are responsible for the development of metabolic links, the enzymes. A missing gene gums up the works because some necessary enzyme is not produced. The metabolic assembly line stops working normally.

In PKU, the inborn metabolic error results in a build-up of the amino acid phenylalanine and its derivatives. These substances, which spill over into the blood and urine, can be detected by a simple urine test. "When put on a special low-phenylalanine diet early enough, affected children can develop normally," Dr. Waisman explains.

But many questions about PKU are still unanswered: How long must such a diet be followed? How does the disease actually affect the brain? Can the metabolic error be corrected? To answer these, Dr. Waisman and his colleagues turned to experimental animals.

Several years ago, they managed to mimic both the disease's biochemical and psychological symptoms in monkeys by "overloading" them with phenylalanine. Now, Wisconsin researchers Dallas Boggs and Vincent Polidora have devised a simple method to detect induced PKU learning deficits in rats.

"Since rats reproduce faster and are much less costly than monkeys," Polidora says, "our experimental studies will be considerably speeded up." Performance in a swimming water maze, they reported, clearly differentiates the normal from the retarded rat.

Dr. Waisman is at the monkey stage in his studies of another retardation-producing disease, Maple Syrup Urine disease. Monkeys fed excessive amounts of certain amino acids, he said at the meeting, excrete "maple syrup urine" and show marked behavioral and learning deficits.

Theo Gerritsen reviewed research on the scientists' latest clue to the biochemical causes of retardation--the presence of excessive amounts of the amino acid homocystine in the urine of a retarded child. Animal experiments are being performed to determine whether a metabolic block is responsible for the chemical's excretion.

FEATURE STORY

FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON 6, WISCONSIN

RELEASE:

4/8/63 jeb

April 20, 1963

By JANE BRODY

ATLANTIC CITY, New Jersey--Mentally retarded monkeys and rats are helping University of Wisconsin medical researchers understand what causes retardation in humans.

The scientists, who reported on their work at the Federation of American Societies for Experimental Biology meeting, April 20, explain that by mimicking the disease in animals, they gain an experimental and economic advantage in studying the biochemical nature of the defect and devising effective therapies.

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UNIVERSITY OF WISCONSIN FOUNDATION

POST OFFICE BOX 2025 • MADISON 5, WISCONSIN • ALPINE 7-3616

Immediately

MADISON, Wis.--Two widely known research authorities in the University of Wisconsin Medical School will head the campaign among medical faculty to raise funds to build the proposed Elvehjem Art Center on the Madison campus.

Dr. Van R. Potter, assistant director of the UW's McArdle Laboratory, is professor of oncology and a distinguished researcher in cancer.

Dr. Harry A. Waisman, professor of pediatrics, is director of the University's Joseph P. Kennedy, Jr. Memorial Laboratory where long-term studies of mental retardation have been inaugurated.

Other members of the committee to raise center funds from the medical staff include: Drs. R. K. Boutwell, oncology; Paul F. Clark, medical microbiology; Anthony R. Curreri, surgery; Edward S. Gordon, medicine; Sture A. M. Johnson, dermatology; Milton Miller, psychiatry; Otto Mortenson, associate dean; Sidney O. Orth, anesthesiology; Henry A. Peters and Hans H. Reese, neurology.

The campaign for funds from the medical staff is one facet of a larger campaign for donations from the entire faculty for the proposed art and cultural center. The drive among faculty recently kicked off a major drive conducted by the UW Foundation which will reach also to students, alumni around the world, and other friends of the University before it ends.

The much needed center requires some \$3.3 million in privately subscribed funds before it can be constructed in a lower campus development. One million dollars for art galleries from the Brittingham Trusts and \$300,000 from the Kohler Foundation for an art library are among major gifts made to date.

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2/27/63 jeb

Biography—Dr. Harry A. Waisman

Dr. Harry A. Waisman, professor of pediatrics at the University of Wisconsin Medical School and director of the new Joseph P. Kennedy Jr. Memorial Laboratory on the Madison Campus, is directing a long-term study of the biochemistry of mental retardation. The aims of the project, ^(supported in part by a \$225,000 Kennedy Foundation grant.) are to understand the chemical causes of mental retardation and develop methods of prevention.

Dr. Waisman's research has centered on hereditary diseases which produce mental retardation. In one such disease, phenylketonuria (PKU), he found that affected children who are diagnosed early enough can develop normally if put on a special low-phenylalanine diet.

In 1957, Dr. Waisman initiated such a treatment program throughout Wisconsin. Thus far, he has succeeded in preventing 20 affected Wisconsin children from becoming retarded. This year, under his supervision a medical motion picture was produced to show physicians how to spot PKU babies.

Dr. Waisman, who is now trying to develop other means of identifying biochemical causes of mental retardation, joined the UW faculty in 1952. Prior to that, he was on the staff of the University of Illinois College of Medicine. Born April 25, 1912 in Milwaukee, Dr. Waisman holds four UW degrees — the B.S. (organic chemistry) in 1935, M.S. (biochemistry) in 1937, Ph.D. (biochemistry) in 1939, and M.D. in 1947. He completed his internship in 1948 at the Research and Educational Hospitals, University of Illinois, and his residency in pediatrics in 1950 at the University of Illinois College of Medicine. ~~XXX~~

The biochemist's earlier studies concerned vitamins and nutrition, many done in collaboration with the late UW Pres. C.A. Elvehjem. He is a member of several professional and honorary societies, American Society of Biological Chemists and the American Association for the Advancement of Science among them.

WIRE NEWS

FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON, WISCONSIN 53706

3/26/64 pvn/jb

RELEASE:

Immediately

MADISON, Wis.--A Legislative Council subcommittee was told Thursday that a drug developed at the University of Wisconsin is helping in treatment of colon cancer and that UW research is learning more about causes of mental retardation.

Dr. Anthony R. Curreri, director of the clinical oncology division at the University Medical Center, reported that 40 per cent of colon cancers respond to treatment by the drug 5-FU (5-Fluorouracil) for anywhere from a period of months to years. By using a dosage that would just begin to affect non-cancerous cells, he said, it is possible to control certain types of cancerous growths.

The subcommittee is studying the UW Medical Center's long-range needs.

Dr. Charles Heidelberger, of the UW McArdle Memorial Cancer Research Laboratories, told the lawmakers that cancer could be characterized in one way by an uncontrolled growth. But before growth occurs, he said, there are certain preliminary steps to be taken in the nucleus of each cell.

If certain of these steps can be blocked, Dr. Heidelberger explained, the growth can be controlled.

"But the researchers have to find the 'magic bullet' which would stop the growth only in cancerous tumors, and not in the bone marrow and in the lining of the intestines where cells normally divide rapidly," he said. This led, he continued, to development of 5-FU.

Dr. Harry A. Waisman, professor of pediatrics, described work in the area of mental retardation research in the Joseph P. Kennedy Jr. Memorial Laboratories, stressing the search for diseases which cause mental retardation and ways to cure the diseases, or at least lessen their effect on the brain.

Add one--legislative subcommittee

He said that of the 100,000 births in Wisconsin every year, about 3,000 babies are mentally retarded. About 700 of these die, another 700 are severely retarded, another 1,500 are "slow learners."

Dr. Waisman has developed a test for at least one disease--PKU--which causes such impairment. By testing a baby's diapers with chemicals the disease can be detected, he said, and then treated with a special diet. PKU occurs about once in 10,000 births.

Without the diet, the child might have an intelligence quotient of about 20, but with it, the child can have an IQ of over 100, he said.

Dr. Waisman emphasized that PKU was only one of many diseases which cause retardation. Some day, he said, there may be a battery of tests performed on every baby to find some of these diseases before they damage the brain.

It costs about 50 cents per test, but it costs \$100,000 to keep a person in an institution for a lifetime, Dr. Waisman added.

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The University of Wisconsin

MADISON 6, WISCONSIN

OFFICE OF THE PRESIDENT
BASCOM HALL

~~Jim has seen
book & this
& see what you
can do to help
- Try to
x-10~~

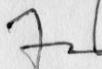
December 4, 1962

Dear Bob:

~~The Shriversons~~ The Shriversons push us to get maximum publicity; and they are impatient. I have told Waisman he should resist efforts of the Kennedy Foundation to use him to publicize their non-Wisconsin projects. But perhaps we should feature Waisman's work a little more in our releases -- or make a report to Shriver or the Kennedy Foundation on this once in a while (with pictures and stuff). What do you think?

I'll help by seeing Shriver and his bride occasionally when in D.C., or phoning them.

Cordially,


Fred Harvey Harrington
President

Professor Robert Taylor
Assistant to the President
Observatory Office Building

Encl.

cc: Vice President Clodius

The University of Wisconsin

December 4, 1962

MADISON 6 WISCONSIN

OFFICE OF THE PRESIDENT
BASCOM HALL

Dear Sargent:

I want to reassure you as to progress in Dr. Waisman's mental retardation research, supported partly by Kennedy Foundation funds.

I had hoped to give you reassurance in person, but you have been out of town during my recent visits to Washington.

You have expressed concern on two points:

(1) delays ("frankly," you wrote Dr. Waisman recently, "I don't feel that we have as yet gotten 'off the ground.'"); and

(2) modification of budget, because of our shift to construction of a larger part of the Kennedy grant than was allocated to building in original plan.

To comment: (1) the delays have been only on construction. The Waisman research has gone full speed ahead, in quite a spectacular way. Six papers published by the Waisman group have won national recognition this year. The Wisconsin mental retardation research team is far and away the most conspicuous group working on the biochemistry of the brain -- the most promising research approach to many types of mental retardation. Wisconsin is unique in being the only place which has produced mentally retarded monkeys. Those enable us to work faster, correlate findings with observations made on retarded children. (Here again we have an unusual opportunity, because we work with the State's Central Colony, and have rare opportunities to observe.)

A relatively small amount of our money comes from the Kennedy Foundation, but we are using that money well -- we already have Kennedy Fellows at work on these projects. My judgment -- and it is an informed judgment, for I work with scores of basic research projects -- is that you will get out of this relatively small expenditure far greater results than you will get out of some of your larger grants. This is one of the fundamental research groups that may make the difference, and provide a real (and spectacular) avenue for improvement of mankind.

One must add, Sargent, that Dr. Waisman is not good at blowing his own horn. He is a quiet, dedicated, man, one of those with the special qualities of originality and greatness. We must not expect him to press himself forward, or to help in the publicity on this and other mental retardation projects (ours or others). Where we of the University have failed is in not providing you and the public with enough progress reports. I will see that this is done -- but by the administration and our science and news writers, not Dr. Waisman.

In explanation, let me merely say that I am new (president only since August; I was here before but had no role in this project). Also, we are still between medical deans; not for long, we hope.

As for (2), we did shift the tentative budget categories some (see attached sheets), to get moving on the facilities end. This does not mean that we are asking more from the Kennedy Foundation -- rather that we are using the funds you provided in a slightly different manner than in the first suggested budget allocation. Perhaps we should have worked with your Foundation officers in more detail along the way. We assumed this reallocation would be satisfactory, for as you know we are using the Kennedy name for the facility.

We do appreciate the Kennedy Foundation help -- it is critical in moving along this key program, which is one of our best bets for helping the American people. We know the project is important to the Foundation, too -- your first important grant to a public institution. We are sure the partnership will work well -- indeed, we plan to return to you later for more help.

And I will keep my hand in this.

With best wishes to Mrs. Shriver, I am,

Cordially,

Fred Harvey Harrington
President

Mr. R. Sargent Shriver, Jr.
Executive Director
The Joseph P. Kennedy Jr. Foundation
Suite 306
1413 K Street, N.W.
Washington 5, D.C.

bc: A. W. Peterson
Dean Cohen
Dr. Waisman
Bob Taylor ✓
Dr. Clodius

THE UNIVERSITY OF WISCONSIN
MADISON 6, WISCONSIN

November 7, 1962

OFFICE OF THE PRESIDENT

Dear Harry:

I wasn't able to reach Shriver before his departure for Africa. I'll be in touch with him around November 20.

I did talk to the assistant research director of the Kennedy Foundation, Dr. Donald Stedman, and told him our point of view -- that all was going very well, and the Kennedy Foundation would be proud of our record; that we had changed the percentage of Kennedy Foundation money going to building a little; but that the Kennedy Foundation was getting a great deal for its money; that if Shriver seemed a little disappointed in us, we were disappointed in them, for pushing us; that we are producing and will want more money later; that we don't want to publicize other Kennedy projects. He'll pass this on to Shriver. He seemed agreeable.

Cordially,

Fred Harvey Harrington
President

Dr. Harry Waisman
112 Bradley

THE JOSEPH P. KENNEDY JR. FOUNDATION

SUITE 306
1413 K STREET, N. W.
WASHINGTON 5, D. C.

DISTRICT 2-3730

RECEIVED
OCT 25 1962
P-2011 IT'S OFFICE

October 17, 1962

Dr. Fred H. Harrington
President
University of Wisconsin
Madison, Wisconsin

Dear President Harrington:

In April of 1961, the Kennedy Foundation gave \$225,000 to the Medical School at Wisconsin. It was my understanding that \$75,000 was to be spent on construction of research facilities and \$150,000 was to be allocated to research activities. It has come to my attention that an additional \$50,000 was transferred from the operating budget for use in the construction fund.

I would appreciate it very much if you would call me at your convenience in relation to this matter.
(Executive 3-6420, Ext. 2025).

Sincerely yours,

R. Sargent Shriver

R. Sargent Shriver, Jr.
Executive Director

cc: Dr. Harry Waisman

KF \$1/2 - (NGI P. 2025)
(Ave STANLEY, H. N. Madison)

\$215 - ((101 -> WNT 4-630 513))
\$875 - Ave 5-630 4-630 \$25.00
50 - " " " 11242 110.00
\$31
P-2013 638 \$31

GRC 6-7-10

THE JOSEPH P. KENNEDY JR. FOUNDATION
SUITE 306
1418 K STREET, N. W.
WASHINGTON 2, D. C.
—
DISTRICT 7-1721

October 17, 1962

Harry Waisman, M.D., Ph.D.
Professor of Pediatrics
University of Wisconsin
1300 University Avenue
Madison, Wisconsin

Dear Dr. Waisman:

I wanted to "kick this matter upstairs" because I am genuinely concerned that we are not making enough progress in the direction of a mental retardation research program at Wisconsin.

At first, I was optimistic about research at Wisconsin but, frankly, I don't feel that we have, as yet, gotten "off the ground".

Fred Harrington is a good friend and an excellent administrator but it seems to me that we must get him more interested before we can make any better progress on this project.

Let's see what we can do about this.

Sincerely yours,

Joseph Barriver, Jr.
Executive Director

Jos. P. Kennedy Memorial Lab. and
Children's Hospital Remodeling

BUSINESS AND FINANCE COMMITTEE

Item II, 2, k

That, subject to the approval of the Governor and the Director of the State Bureau of Engineering, contracts for construction of the Joseph P. Kennedy Memorial Laboratory and Remodeling of the Children's Hospital on the Madison campus of the University (Project No. 5488) be awarded to the low bidders on the basis of the net bids as determined from the base bids with alternate bids accepted as indicated; and that any Vice President or Assistant Vice President of the University be authorized to sign the contracts:

		Kennedy Lab.	Total Children's Hospital	Total	Neur ol.	Cancer Research
<u>GENERAL CONSTRUCTION</u>						
Anthony Grignano Co	Base Bid 1	92,800				
802 E. Olin Ave.	Alt. 1A		100,000			
Madison 13, Wis.	Alt. 1B				6,700	
	Alt. 1C	1,833	3,667			
			94,633			
				103,667		
<u>PLUMBING</u>						
Monona Plumbing Service, Inc.	Base Bid 2	24,947				
4604 Monona Dr.	Alt. 2A		29,898			
Madison, Wis.	Alt. 2B				998	
	Alt. 2C	66	132			
	Alt. 2D	1,898				
			26,911			
				30,030		
<u>HEATING & AIR CONDITIONING</u>						
Kilgust Heating, Inc., 122 E. Lake- side St., Madison, Wis.	Base Bid 3	28,190				
	Alt. 3A	10,938	10,937			
	Alt. 3B		24,330			
	Alt. 3C				4,290	
	Alt. 3D	790				
			39,918			
				35,267		
<u>ELECTRICAL</u>						
Gregory Electric Oconomowoc, Wis.	Base Bid 4	13,100				
	Alt. 4A	625	625			
	Alt. 4B		17,530			
	Alt. 4C				1,700	
	Alt. 4D	1,000				
	Alt. 4F					1,000
	Alt. 4G	2,800	5,600			
			17,525			
				23,755		

<u>Kennedy Lab.</u>	<u>Children's Hospital</u>	<u>Neurology</u>	<u>Cancer Research</u>
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INSULATED STORAGE ROOMS

Erickson Industries, Inc.

River Falls, Wis. Base Bid 5 8,220.

That the following schedule of costs be approved for construction of the Joseph P. Kennedy Memorial Laboratory and Remodeling of the Children's Hospital on the Madison campus of the University:

Total Construction Contracts	187,207	192,719	13,688	1,000
Architect's Fees		14,850	1,180	90
Bureau of Engineering, including supervision	20,000	5,000	500	40
Contingencies, including \$45,000 for lab. equip.	57,793			
Contingencies	—	22,431	1,632	70
TOTAL SCHEDULE	\$265,000	\$235,000	\$17,000	\$1,200

SOURCE OF FUNDS:

Kennedy Foundation	\$130,000	\$17,000	\$1,200
National Institutes of Health	110,000		
Graduate School	25,000		
State Building Trust Fund		200,000	
University Hospitals	—	\$ 35,000	—
TOTALS	\$265,000	\$235,000	\$17,000
			\$1,200.

The University of Wisconsin
MADISON 6 WISCONSIN

OFFICE OF THE PRESIDENT
BASCOM HALL

December 27, 1962

Dear Mrs. Shriver:

Here is a new development in our Wisconsin mental retardation research, in the program which the Kennedy Foundation is supporting.

Dr. Waisman, a central figure in this research, is a most modest man and disinclined to publicize his findings; but most of us feel that he is on the track of many fundamental discoveries. They are certainly needed -- as I realize after making a tour with our Governor-elect John Reynolds of some hospitals for the mentally retarded.

Cordially,

Fred Harvey Harrington
President

Mrs. R. Sargent Shriver, Jr.
The White House
Washington, D.C.

Encl.

The University of Wisconsin
MADISON 6 WISCONSIN

December 27, 1962

OFFICE OF THE PRESIDENT
BASCOM HALL

Dear Sargent:

Here is a release showing another important new development in the mental retardation research here.

With the new Kennedy Laboratory, we should go ahead even more effectively in the future.

Cordially,

Fred Harvey Harrington
President

Mr. R. Sargent Shriver, Jr., Director
Peace Corps
Washington, D. C.

Encl.

*Note: Copy of release also sent
to Joseph P. Kennedy, Jr. Foundation*

U. W. NEWS

FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON 6, WISCONSIN

12/26/62 jeb

RELEASE:

Immediately

By JANE BRODY

MADISON, Wis.--Two University of Wisconsin medical researchers have just uncovered another clue to the causes of mental retardation.

Drs. Harry Waisman and Theo Gerritsen, department of pediatrics, in analyzing the urine of a mentally retarded child, found excessive amounts of a body chemical not detected in the urine of normal children. The presence of this chemical, a sulfur-containing amino acid called homocystine, reflects a metabolic difficulty which probably results from a genetic error, the scientists explain.

This latest clue was discovered as part of a long-term study of the biochemistry of mental retardation by Dr. Waisman and his associates. The aims of the project, supported in part by a \$225,000 Kennedy Foundation grant, are to understand the chemical causes of mental retardation and develop methods of prevention.

"Analysis of the urine and blood of mentally retarded children," Dr. Waisman explains, "gives us hints on how these children differ metabolically from normal children."

Body metabolism works something like an automatic assembly line. Substances pass from one point to the next, with changes or additions made at each stop. If a block occurs at one point, the substance coming to it piles up. In the body, these excesses either overflow directly into the blood and urine or are broken down by another method which means some new, unusual substance is excreted.

"These excess or unusual chemicals probably interfere with the normal functioning of brain tissue cells which control electric responses between nerves," Dr. Waisman says. The result: a mentally retarded child.

-more-

Add one--mental retardation

Most cases of mental retardation are genetically caused. Genes are responsible for the development of metabolic links, the enzymes. A missing gene gums up the works because some necessary enzyme is not produced. The metabolic assembly line stops working normally.

As Dr. Waisman says, "If we can detect these metabolic errors during the first weeks of life, we may be able to control the infant's diet to assure normal mental development."

Dr. Waisman's research has centered chiefly around the hereditary disease phenylketonuria (PKU) which produces mental retardation. In PKU, the inborn metabolic error results in a build-up of the amino acid phenylalanine and its derivatives. These substances, which spill over into the blood and urine, can be detected by a simple urine test.

Affected children who are diagnosed early enough can develop normally if put on a special low-phenylalanine diet. In 1957, Dr. Waisman initiated such a treatment program throughout Wisconsin. This year, under his supervision a medical motion picture was produced to show physicians how to spot PKU babies.

The scientists do not yet know what connection their new clue, homocystine, may have to mental retardation. Their next step is to look for this chemical in the urine of other retarded children. According to Dr. Gerritsen, they will also perform animal experiments to determine what the chemical actually does to body, and especially brain, tissues.

Next summer, the mental retardation research project will move into the Joseph P. Kennedy Jr. Laboratory, now being built as an additional floor atop the Children's Hospital. The Kennedy Foundation, which along with the UW Graduate School Committee and the National Institutes of Health contributed to construction costs, supports a nationwide program to develop increased medical interest in mental retardation research and treatment.

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U. W. NEWS

FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON 6, WISCONSIN

10/19/62 hd

RELEASE:

6 p.m. Saturday, Oct. 20
(time set by foundation)

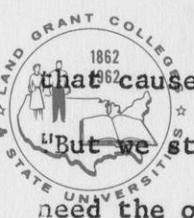
MADISON, Wis.--(Advance for 6 p.m. Saturday)--"A step toward implementing the recommendations of President Kennedy's Panel on Mental Retardation is being made today with a grant by the Joseph P. Kennedy Jr. Foundation to the George Peabody College for Teachers, Dr. Harry Waisman, professor of pediatrics at the University of Wisconsin Medical School announced.

Dr. Waisman is a consultant to the panel that released a 281 page report Monday urging a number of programs to help 5.4 million retarded Americans.

Dr. Waisman was referring to a special grant given to Peabody College in Nashville, Tenn., to help their already extensive program of training teachers to teach the mentally retarded. The special allocation of funds will bring to Peabody a number of leading scientists from various disciplines to teach and engage in research in the field of mental retardation as "Kennedy Foundation vising professors" during the next two years.

The Peabody grant is part of a larger philanthropic program by the Kennedy Foundation aimed at mental retardation. Construction has just begun at the University of Wisconsin on the Joseph P. Kennedy Jr. Laboratory, made possible, in part, by a grant to Dr. Waisman. The Laboratory will be devoted to researching the causes of mental retardation.

"A good start has been made in understanding the causes of some diseases that cause mental retardation," said Dr. Waisman, who is noted for his work on PKU.


"But we still have the problem of dealing with children who are slow learners and need the opportunities of special training," he added.

Add one--Waisman

The preparation of teachers to school the mentally retarded was specifically recommended in the panel's report. The report stressed the need for helping those already handicapped as well as trying to prevent retardation.

The Kennedy Foundation was established 16 years ago by Joseph P. Kennedy, former ambassador to Great Britain and father of the President, as a memorial to his eldest son who was killed in action during World War II. To date, it has donated more than \$17 million to institutions and research programs related to children's diseases, particularly mental retardation.

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U.W. NEWS

FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON 6, WISCONSIN

9/26/62 rb

RELEASE:

Immediately

MADISON, Wis.--A new medical motion picture, "PKU Mental Deficiency Can Be Prevented," was shown for the first time to physicians at a special premiere at the University of Wisconsin Wednesday.

The film was produced under supervision of Dr. Harry A. Waisman of the UW Medical School's department of pediatrics. The film is designed to show physicians and medical personnel how to carry out preliminary tests to spot PKU babies. A simple detection technique is shown that can be carried out in a doctor's office.

PKU is the result of an inability of some infants to metabolize or digest completely a component of protein, phenylalanine. When completely metabolized, an excess of some of its products, chemicals known as phenylketones, builds up in the blood of humans. Unless detected soon after birth and corrected by restricting the intake of foods rich in phenylalanine content, serious mental retardation results in children.

The film stresses that testing for PKU must become as routine and as standard for general practitioners and pediatricians as shots for diphtheria, polio, and small pox.

Researchers at the University of Wisconsin and elsewhere are still trying

to learn just what causes the defect in metabolism and why it produces mental

retardation. Dr. Waisman and his research group are active in a program of

testing in some Wisconsin hospitals to learn more about the disorder and how PKU can be prevented by spotting the defect in time.



Add one--PKU film

If PKU children are fed a restricted diet from the first weeks after birth, they can grow up normally without mental retardation.

The 14½ minute, sound, black and white motion picture was produced under a grant from the Ames Co., Inc., Elkhart, Ind., a pharmaceutical firm, which is supplying prints, on request, for national showings.

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U. W. NEWS

FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON 6, WISCONSIN

9/27/62 rb

RELEASE:

Immediately

MADISON, Wis.--A new medical motion picture "PKU Mental Deficiency Can Be Prevented" was shown for the first time to physicians at a special premiere at the University of Wisconsin Wednesday.

The film was produced under supervision of Dr. Harry A. Waisman of the University of Wisconsin Medical School's Department of Pediatrics. It presents the case histories of two siblings, both with phenylketonuria (PKU)--an inborn metabolic error, which can lead to severe and permanent mental retardation. One child was treated from soon after birth and the older child was diagnosed too late.

The film reviews the biochemistry, genetics, symptoms, diagnosis and management of PKU. A number of simple diagnostic tests are described by Dr. Waisman, including Phenistix (stick test), ferric chloride, 2-4 dinitrophenyl-hydrazine, bacterial inhibition, and quantitative plasma analysis.

Testing for PKU, the film stresses, must become as routine and as standard for general practitioners and pediatricians as shots for DPT, polio, and smallpox.

The 14½ minute sound, black and white motion picture was produced under a grant from the Ames Co., Inc., Elkhart, Ind., a pharmaceutical firm, which is supplying prints, on request, for national showings.



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FEATURE STORY

8/7/62 jeb

FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON 6, WISCONSIN
Immediately
RELEASE:

By JANE BRODY

MADISON, Wis.--Twenty pre-medical students are, in their own words, "having the time of our lives" this summer, thanks to a unique research opportunity offered by the University of Wisconsin Medical School.

Each student is working under a Medical School professor on a research project of mutual interest.

Wisconsin has been a leader in introducing students to research while in medical school. This is the first year the UW Medical School has given students a chance to do research before they begin their medical studies.

According to pediatrics [Prof. Harry A. Waisman], the University hopes that through this program "the students will acquire a critical view of what they read and study, a feeling for research, and a realization that they are but small cogs in a big research wheel." Dr. Waisman is chairman of the medical student research committee.

Studies include enzymes involved in cancer, research on blood, brain biochemistry and smooth muscle physiology. Most of the students are assistants on these long-range projects. Some, however, will have projects of their own.

Hopefully, Dr. Waisman notes, they will continue their research for the next two summers. They can also choose to split their second, third, or fourth years into half-research, half-study.

Comprising one-fifth of the Medical School's prospective freshman class, the group was chosen on the basis of interest, academic record, and enthusiasm.

-more-

Add one--pre-med research

Most of the students participating were undergraduates at UW, but several studied at schools in other states. Members of the group are:

Edward Hunold (2101 Jefferson), James Reynolds (3108 Oxford Rd.), and Jean Wivel (18 S. Sego Rd.), all of Madison; Aaron Bodner (2911 N. 49th St.), Richard Herrmann (4523 N. 22nd St.), and Richard Katz (5943 N. Lake Dr.), all of Milwaukee; James Anderson, Superior; David Auclair, Wisconsin Rapids; Sigitas Babusis, Los Angeles, Calif.;

Jerome Behrens, Greenwood; Thomas Corbett, Appleton; Jacob Feldman, Flushing, N.Y.; Neil Hoffman, Kenosha; David Knutzen, Mauston; David Larson, Wittenberg; Thomas Pfaehler, Waukesha; James Seyler, La Crosse; Peter Simon, New York, N.Y.; Walter Tardy, Detroit; and Thomas Wegmann, Wauwatosa.

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WIRE NEWS

FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON 6, WISCONSIN

5/18/62 jas

RELEASE:

Immediately

MADISON, Wis.--The seventh annual Medical Alumni Day will be held at the University of Wisconsin Medical School in Madison Friday, May 25.

Some 4,000 alumni living and practicing medicine in this country and throughout the world have been invited to take part in the annual event, sponsored by the Medical Alumni Association.

The day's program will include lectures by medical researchers and educators, the association's annual business meeting and election, reports on the Medical School and the new medical library, and a luncheon in University Hospitals cafeteria.

Highlights of the 7 p.m. banquet at the East Side Business Men's Club will include presentation of the Medical Alumni Citation and the Emeritus Faculty Award. Newly elected officers will be installed and alumni association memberships presented to seniors.

Medical School faculty members taking part in the Alumni Day program are: Dr. Philip Cohen, acting dean, who will preside at the afternoon session and give a "State of the Union" message; Dr. Harry Waisman, professor of pediatrics, who will speak on "Progress in Mental Retardation Research"; Dr. Halvor Vermund, professor of radiology, who will speak on "New Developments in Radiotherapy"; and Dr. Helen Dickie, professor of medicine, who will deliver the silver anniversary class speech.

UW Pres. Conrad Elvehjem will be a special guest and will take part in presentation of awards at the banquet.

-more-

add one--medical alumni

On Thursday, May 24, several pre-alumni day activities will take place.

The Council of Class Representatives will meet at 4 p.m. to discuss future programs for the association. The Past Presidents' Dinner will be held at 7 p.m. Thursday at the Ivy Inn.

Five graduating classes--1927, 1932, 1937, 1942 and 1952--will hold special reunions Thursday evening.

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U. W. NEWS

3/9/62

FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON 6, WISCONSIN

RELEASE:

(Advance for 5 p.m., Saturday
March 10)

MADISON, Wis.--(Advance for 5 p.m., Saturday, March 10)--A \$1,100,000 grant to Stanford University's School of Medicine by the Joseph P. Kennedy Jr. Memorial Foundation is of interest to the University of Wisconsin.

The grant was announced Saturday by Mr. and Mrs. Robert Sargent Shriver, Jr., who jointly administer the foundation. Mrs. Shriver is a sister of President John F. Kennedy and Mr. Shriver is head of the Peace Corps. Mr. and Mrs. Shriver were on hand at the Wisconsin campus Saturday to discuss the new grant. The grant involves construction of a research center at Stanford for studies related to mental retardation.

A grant to Wisconsin in 1961 has made possible an expanded program of research under the direction of Dr. Harry A. Waisman of the University's Department of Pediatrics. Considerable progress has already been made in this program.

The Stanford grant is of further interest at Wisconsin since it involves a distinguished former faculty member. Dr. Joshua Lederberg, 1958 winner of the Nobel Prize and former professor of genetics at Wisconsin, will coordinate the research and educational activities under the Stanford Grant. He is current head of the department of genetics at Stanford.

In announcing the gift, Mr. Shriver said, "Mental retardation is one of the most pressing medical and social problems in the United States today. Three per cent of all children born each year are afflicted by mental retardation. It

affects 20 times as many people as tuberculosis and 600 times as many as polio.

-more-



add one--Kennedy Foundation grant

"By establishing research units such as those at Stanford and Wisconsin, we hope to accelerate investigations by outstanding scientists across the nation with the aim of discovering the causes of mental retardation and eventually successfully preventing and treating this condition."

The Kennedy Foundation was established 16 years ago by Joseph P. Kennedy, former ambassador to Great Britain and father of President Kennedy. It is a memorial to Lt. Joseph P. Kennedy Jr., who was killed in action in World War II while on a secret volunteer mission over the English Channel.

The foundation has donated more than \$16,500,000 thus far to institutions and research programs related to children's diseases, particularly mental retardation.

When informed of Dr. Lederberg's new affiliation with the Kennedy Foundation efforts in the mental retardation field, Dr. Waisman said, "It is most gratifying to have Dr. Lederberg on our team. His work at Stanford will be a distinct asset to basic research which in turn will aid in determining some of the causes of mental retardation. Our overlapping interests will insure our closer contacts."

Dr. Waisman pointed out that the UW is an important part of a growing and vital net-work of research centers which have been established by the Kennedy Foundation in a determined program of research into children's illnesses--particularly retardation. He noted that interchanges of findings, ideas and activities between the various hospitals and universities working with Kennedy Grants will be of immeasurable aid in speeding up research progress and success.

"I look forward to Dr. Lederberg's work in this field," said Dr. Waisman.

In the first year of research at Wisconsin under the Kennedy Foundation grant considerable progress is already reported by Dr. Waisman and his colleagues, Drs. Theodore Gerritsen, Dallas Boggs and V.J. Polidora.

Having succeeded in producing mentally retarded animals, important observations and studies can now be made which were previously impossible. This breakthrough has permitted the UW staff to make some important research advances.

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FEATURE STORY

11/7/61 pvn

FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON 6, WISCONSIN

RELEASE: Immediately

By PAUL VAN NEVEL

MADISON, Wis.--Ever wonder what eating a pork chop, or a sirloin steak or even beans has to do with keeping you alive?

The connection between food and life is complex.

A pork chop is sort of like a package cake mix. It's not the mix or the pork chop itself that's important. It is the ingredients that count.

Fats, calories, proteins and amino acids, etc., all keep your heart pumping, much as gasoline keeps the car engine running. What happens to proteins and amino acids is a good example of what goes on inside your body.

Proteins and amino acids are found in great quantities in pork chops and are a main ingredient of any meat. Both undergo changes in the body to keep you alive.

Proteins are long strings of amino acids. Through enzymes in your mouth, intestines and stomach, your body breaks the protein and amino acid down so that it can use the ingredients.

This is much like a housewife separates the egg yolk from the egg white and uses one for the cake and the other for the frosting. In addition to being useful in themselves, the ingredients, or more properly the derivatives of amino acids also form other proteins.

One amino acid, tryptophan (trip'-toe-fain) breaks down into at least 18 different products, rather than just two as an egg does. These parts are then automatically shuttled off to build up cells in muscles, bones and blood.

-more-

Add one--pork chop

Housewives use heat to boil water, and engineers use dynamite to break down mountains. Likewise, the body uses enzymes to break down tryptophan and other amino acids. Some of these enzymes contain the vitamins, thiamine, riboflavin and Vitamin B6.

Scientists in laboratories all over the world are studying proteins, amino acids and what your body does with them.

This is a reason why:

The whole process can be compared to a guided missile. When one tiny part doesn't work right, the whole system is thrown out of kilter. The diseases which result from these failures are becoming more and more important as scientists find cures for the common diseases of yesterday.

Though tryptophan is only one of many amino acids, the list of what happens when something goes wrong is frightening.

For example at the University of Wisconsin Medical Center, Dr. James M. Price has found that one of the breakdown products of tryptophan may cause cancer in the urinary bladder. When something goes wrong, the product collects in large amounts in urine and appears to lead to the formation of malignant tumors in the bladder.

Another of tryptophan's breakdown products has been found to cause diabetes in animals under certain conditions, and still another breakdown product has been known to prevent this type of experimental diabetes in laboratory animals.

[Dr. Harry A. Waisman, also of the UW Medical Center, has found that tryptophan has a connection with the disease phenylketonuria (PKU), which causes mental retardation.

PKU occurs when the body, because an enzyme isn't working, fails to break down phenylalanine, another amino acid. This collects in the blood and damages the brain.

Add two--pork chop

"Taking a clue from experiments with rats, where tryptophan apparently increased activity of the enzyme that breaks down the phenylalanine," Dr. Waisman said, "it seemed worthwhile to feed this tryptophan in order to break down the phenylalanine more efficiently.

"When tryptophan is administered to a patient with PKU, the phenylalanine is metabolized better. It is too early to say whether the mental retardation is less severe, because tryptophan has to be fed for long periods."

Dr. Price and Drs. Madeline Thornton and Raymond Brown, of the Medical Center, have noted that tryptophan breakdown is slightly out of kilter in pregnant women.

Studies by the three indicate this is probably due to a shortage of Vitamin B6 and changes in some body glands.

Tryptophan also breaks down into the vitamin, niacin, which is the cure for pellagra.

Even though many things go wrong, eating pork chops and then breaking down proteins to amino acids, and then breaking down the amino acids for use is a normal process in most people and nothing goes wrong.

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U. W. NEWS

7/31/61 pvn

FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON 6, WISCONSIN

RELEASE:

Immediately

By PAUL VAN NEVEL

MADISON, Wis.--A program to detect the little-known disease, phenylketonuria (PKU), which causes mental retardation in children, will be extended into the state from the University of Wisconsin Medical Center.

The program, directed by Prof. Harry A. Waisman, pediatrics department, will begin during August at St. Joseph's Hospital, Milwaukee; St. Mary's Hospital, Madison; Monroe Clinic; and in Eau Claire and Dodge counties.

Dr. Waisman hopes to extend the tests to other parts of the state as soon as possible. His work in mental retardation research is supported by a grant of \$94,041 from the National Institutes of Health and a Joseph P. Kennedy Jr. Foundation grant of \$225,000, received in April.

If PKU is detected when an infant is three to six weeks old, a special diet will allow the child to reach near-normal mental ability. By checking urine samples of babies in the test areas, Dr. Waisman hopes to find children with PKU and get them on a low phenylalanine diet before brain damage begins.

He will send mothers of babies born in the five areas several pieces of filter paper, which they will place in the baby's diaper. After being wetted with the infant's urine, the papers will be returned to Dr. Waisman at the University Children's Hospital. A simple chemical test will determine whether the infant has PKU.

When children with the disease go untreated, the resulting retardation is great enough to warrant institutional care. According to studies there are about 75 such children in Wisconsin state and private institutions.

Add one--mental retardation

Though more research is needed, Dr. Waisman hopes the children on the special diet will be able to eat normally by the time they begin first grade. While on the special diet, they must avoid high-protein foods, such as milk, meat, eggs and beans.

A normal body functions like clockwork. An infant with PKU is like a clock with a broken spring. Unable to function correctly, the affected child's body cannot break down and use an element in high protein foods, such as milk.

This element, an amino acid called phenylalanine, then collects in the blood along with some of its by-products, and causes extreme brain damage.

By the time an infant is three weeks old, the phenylalanine can be easily detected, since it, or its by-products, are excreted in urine.

Dr. Waisman would like to extend the tests to the entire state after the pilot study is completed. "Physicians are becoming increasingly aware of metabolic causes of retardation and in the future will be able to do these tests routinely in their offices," he said.

Eau Claire County's program will be carried out by its public health officer, who will work with the University team. The other programs will be conducted directly by Dr. Waisman and his staff.

According to Dr. Waisman, further research may make tests for other diseases possible with the same piece of urinated filter paper used to detect PKU. It is mostly a matter of finding a way to preserve the urine sample. Research will continue.

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Waisman

4/28/61

GUESTS AT PRESENTATION OF KENNEDY FOUNDATION GRANT

Mrs. R. Sargent Shriver Jr., sister of President Kennedy

John W. Reynolds, attorney general of Wisconsin

David J. Blanchard, speaker of the Wisconsin Assembly

Conrad A. Elvehjem, president of the University of Wisconsin

Carl E. Steiger, president of the University Board of Regents

Fred H. Harrington, UW vice president of academic affairs

Edward J. Connors, superintendent of University Hospitals

Dr. John Z. Bowers, dean of the University Medical School

Dr. Nathan Smith, chairman of the department of pediatrics

Dr. Harry A. Waisman, professor of pediatrics

Dr. Ward Darley, executive director of the Association of American Medical Colleges

Dr. H. Kent Tenney Sr., chairman of the State Mental Health Advisory Committee

777

U. W. NEWS

FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON 6, WISCONSIN

4/27/61

RELEASE:

Immediately

MADISON, Wis.--The Joseph P. Kennedy Jr. Foundation today donated \$225,000 to the University of Wisconsin Medical School for mental retardation research. Mrs. Robert Sargent Shriver Jr., sister of President Kennedy, presented the check to University officials, with the attorney general and other state officials on hand.

The grant will support the first stage of an experimental program of mental retardation research under the direction of Dr. Harry A. Waisman of the University's department of pediatrics. Of the sum provided by the Kennedy Foundation, \$75,000 will be used to help pay the cost of erecting an additional floor at Children's Hospital which will house the Joseph P. Kennedy Jr. Laboratory. The remaining \$150,000 will be used over the next five years to support laboratory research.

The Kennedy Foundation has carried on a highly concentrated program throughout the country to develop increased interest within the medical profession in mental retardation research and treatment.

The grant to the University brings the total donated by the foundation to \$13,000,000 in the past nine years. Other institutions established in whole or in part by the Kennedy Foundation include the Child Study Center at St. Johns Hospital in Santa Monica, Calif.; Joseph P. Kennedy Jr. Memorial Hospital in Brighton, Mass.; Joseph P. Kennedy Jr. Community Center in the Harlem district of New York; Joseph P. Kennedy Jr. School for Exceptional Children, Palos Park, Ill.; Children's Medical Center of Johns Hopkins Medical Institute; Joseph P. Kennedy Jr. Clinic in Washington, D. C.; and a research project at the Cardinal Stritch College in Milwaukee, Wis.

Add one--Kennedy grant

Accepting the check from Mrs. Shriver today was Conrad A. Elvehjem, president of the University, along with Dr. John Z. Bowers, dean of the Medical School, and Dr. Waisman. Present were John W. Reynolds, state attorney general; David J. Blanchard, speaker of the Wisconsin Assembly; and Carl E. Steiger, president of the Board of Regents.

Mrs. Shriver is a sister of the late Joseph P. Kennedy Jr., who died in World War II and in whose memory the foundation was established. She expressed great satisfaction with the University's plan to concentrate efforts on the causes of mental retardation. "Dr. Waisman is wonderfully qualified to carry out a project as vital as this, and we of the Kennedy Foundation are expressly grateful that Dr. Waisman will be supported in his efforts by a highly qualified staff," she said.

"For some time, our Foundation efforts were directed to providing custodial institutions and hospitals for those already afflicted. However," Mrs. Shriver continued, "we are convinced that there must be concentrated efforts to determine the causes of mental retardation. If this is accomplished, then developing methods of treatment will be far less difficult."

Pres. Elvehjem said, "We are grateful that the University has been selected by the Joseph P. Kennedy Jr. Foundation for this sizeable grant to expand our research in a field that promises significant contributions to the health and welfare of children. We appreciate also the recognition extended to the work of the Medical School in applying fundamental research in biochemistry and genetics to the resolving of problems in diseases of the mind."

Dr. Waisman, born in Milwaukee, has been a member of the University of Wisconsin Medical School faculty since 1952. He received a Ph.D. in biochemistry at Wisconsin under Dr. Elvehjem in 1939, and after several years of research in this field at the University, he entered the Medical School and completed his medical degree studies. He interned at the University of Illinois Educational and Research Hospital and was assistant professor of pediatrics at Illinois for two years.

Add two--Kennedy grant

Dr. Waisman has been concerned with the study of mental retardation due to "inborn errors of metabolism" since 1956. Prior to that, he worked on cancer and leukemia in children. His research has centered chiefly around the hereditary disease phenylketonuria (PKU) which produces mental retardation.

"This grant from the Joseph P. Kennedy Jr. Foundation will provide increased and improved laboratory facilities and will also enable us to obtain outstanding research biochemists who can further the investigations on mental retardation," Dr. Waisman said. "The grant will enable us to pursue specific problems dealing with brain enzymes and the role of various metabolic substances which probably play a part in maintenance of normal intellectual behavior."

Dr. Waisman's associates in these studies will be Dr. Theo Gerritsen, Dr. Hwa Lih Wang, Dr. Robert H. Weaver, Dr. Lynnette H. Doeg, Dr. V. R. Harwalkar, Dr. V. J. Polidora, Phyllis Berman, Gail Palmer, Chris Ripp, and Mary Blankenheim.

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U. W. NEWS

FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON 6, WISCONSIN

4/27/61 gmb

RELEASE:

Immediately

(with Kennedy Foundation grant)

Dr. Harry A. Waisman, professor of pediatrics at the University of Wisconsin Medical School, has been concerned with the study of mental retardation due to "inborn errors" of metabolism since 1956. Prior to that time, he worked on cancer and leukemia in children. His mental retardation research has centered chiefly around the hereditary disease phenylketonuria (PKU) which produces mental retardation. In this disease, there is a lack of an enzyme in the liver which is needed to convert, or metabolize, the amino acid phenylalanine into tyrosine, another amino acid necessary for normal body function. Phenylalanine is normally taken into the body in various high protein foods such as eggs, meats, beans, and milk.

This inability of the body of some mentally retarded children to properly metabolize phenylalanine results in the accumulation of the amino acid together with its derivatives, such as phenylketones, in large amounts in the blood plasma. These chemical products cause extensive brain damage, and the longer they are allowed to circulate through the body, the greater the damage. The products are excreted in abnormally large quantities in the urine.

The disease is transmitted by a recessive gene. Therefore, PKU cannot occur unless both parents have the gene and are carriers of the disease. Every time a child is born of such carrier parents, there is a 1 to 4 chance that he will have PKU. One in 80 persons is a carrier, so one in 25,000 children will have the disease.

-more-

Add one--mental retardation

Since 1956, Dr. Waisman has examined all mentally retarded children in state institutions for whom the cause of retardation was unknown. By use of a simple urine test, he found 55 who showed symptoms of PKU. Although little could be done for these children, they led him to their families, in which other phenylketonuritic children might be born.

He initiated a treatment program in 1957 for children in whom the disease was diagnosed in the first few weeks of life, again by use of the urine test. He started the infants on a low-phenylalanine diet of milk powder. This is dissolved in water and fed like any other formula; it allows good growth, good bone formation, and attainment of most skills if followed rigorously.

One question that remains is how long children must stay on such a diet.

In order to further study the effects of the disease on the brain, Dr. Waisman fed rats excessive amounts of phenylalanine. These rats were severely retarded; they failed simple discrimination tests.

More recently, in cooperation with Dr. Harry F. Harlow, Prof. Waisman has produced mental retardation in infant and adolescent monkeys by "overloading" them with phenylalanine. Prolonged psychological tests are being done on these monkeys to determine the extent of retardation. This is done simultaneously with the treatment of phenylketonuritic children.

Since the attack on PKU has been generally successful, researchers have been given a key to other "inborn errors of metabolism" operating, perhaps, in similar ways to produce mental retardation. Therefore, studies on other diseases are being initiated by Dr. Waisman and his group.

Excessive amounts of amino acids thought to be connected with other diseases resulting in mental retardation, such as Maple Syrup Urine disease, are being fed to monkeys. Also, excessive amounts of galactose (a sugar), to mimic the disease galactosemia, are being fed. Metabolic experiments using these monkeys are planned, as well as amino acid analyses and other biochemical work.

Add two--mental retardation

Dr. Waisman and co-workers have been able to elevate the blood plasma levels of various amino acids in rats by feeding them high amounts of the amino acids, using an alternate light and dark room cycle. The feeding patterns in the rats change and the plasma levels of, for example, phenylalanine, can be raised approximately 15 times above normal. Learning and behavior patterns in these rats are now being studied. They also intend to do biochemical studies on the body tissue of these rats.

A few mentally retarded patients from state institutions have been hospitalized in order that metabolic studies, in the form of collection of blood and urine following amino acid "overloading" may be done. If extra amounts of amino acids or other products are present in the urine or blood, or the pattern of amino acid excretion is changed, this may again be due to an inborn error of metabolism.

Dr. Waisman says that he may again visit all state institutions in an effort to test for other disease of chemical origin that may be causing retardation.

Another research project is to try to understand enzymes in the brain and how they function in normal workings of the brain.

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FILE

Dr. Waisman

March 31, 1961

Dean John Willard
Graduate School
157 Bascom

Dear Dean Willard:

The Joseph P. Kennedy, Jr. Foundation has just awarded me a grant of \$225,000 for the next five years to support my research program in mental retardation. Of that money, \$75,000 was designated to be used for remodeling a laboratory in the basement of Children's Hospital. The remainder or \$150,000, was to be used as \$30,000 research money for the next five years.

In order to advance my research program and to accommodate the several postdoctorates and research assistants now working in the laboratory and to pursue some very interesting leads which we have developed during the past two years, it would be most worthwhile to have laboratory space that would be satisfactory for this program. Unfortunately, the laboratory space available in the basement portion of Children's Orthopedic Hospital consists of only 1800 feet at a maximum.

Dean Bowers, President Elvehjem and I looked at this space and the three of us agreed that it would be not appropriate to designate this space as the Kennedy Laboratory, nor would it provide the necessary laboratory space. An alternate space is available as an additional floor to the north-south wing of the Children's Hospital. This space would provide 5300 square feet and would accommodate the several laboratories that we envision to be adequate for my research program. Preliminary sketches from the architect's office on the campus indicate that this one story addition would provide adequate room and would cost approximately \$200,000.

President Elvehjem himself made the suggestion that we apply to the Graduate School Research Committee for \$25,000 that could be added to the \$75,000 the Kennedy Foundation would provide and we would thus have \$100,000 that could be matched by funds from the Health Facilities Research Branch of the NIH. This would then hopefully total \$200,000. I am writing you at this time on behalf of the Medical Center, Dean Bowers and myself in order to request this small sum of money from the Research Committee.

In order to provide your Committee with adequate scientific background on the work now in progress in my laboratory, I would like to present the following short summary. During the past four years nearly my entire research time has been devoted to pursuit of the role of amino acids, the enzymes concerned with their metabolism, and the role of amino acid metabolites in the causation of brain damage and mental retardation. A number of very interesting leads have developed and it would be informative to your Committee to have a short sketch of these findings and future plans.

1. Experimental production of mental retardation in monkeys;

Through the phenomenon of overloading the monkey's capacity to deal with high amounts of amino acids fed, certain enzymes are unable to cope with these substances as substrates and are therefore excreted as keto acids. Apparently these keto acids are able to reach the brain and in some manner cause mental retardation when infant monkeys are fed extremely high amounts of various amino acids soon after birth. Such experiments have already been completely successful using 3.0 gm L-Phenylalanine per kilogram per day in a milk diet, and the mental retardation has been confirmed through the cooperation with Professor Harry Harlow (Weissman, Harlow et al, *Nature*, 1958, 112h, Dec. 2h, 1960). Additional studies are just being initiated in order to test the role of other amino acids that are known to involve diseases other than phenylketonuria such as Maple Syrup Urine disease in which branched chain amino acids are abnormally metabolized. High galactose feedings have also been initiated in order to mimic the well known human disease galactosemia. Metabolic experiments using these monkeys are necessary and in order to pursue our ideas, additional laboratory space is necessary to do appropriate amino acid analysis, paper chromatography for the various amines, and keto acids on both the blood and urine of these animals housed in the Primate Laboratory. No animal facilities are necessary in the proposed Kennedy Laboratories.

2. Amino acid studies in rats; We have now been able for the first time to elevate the plasma amino acids in rats fed high amounts of various amino acids using an alternate light + dark cycle in an animal room so equipped so that the lights are on for 3 hours and off for 3 hours. The feeding patterns change in rats and the plasma levels of phenylalanine can be raised approximately 15 times that above normal. Maze performance and behavior patterns in these rats are now being studied. Biochemical studies on tissues of these animals is now mandatory and additional laboratory help will have to be procured.

3. Through the cooperation of Professor Konrad K. Abert, brain specimens from these rats and phenylketonuria monkeys have demonstrated changes in the myelin formation around nerve cells and in mitochondrial of neuroglia cells seen in the electron microscopic sections of cortical tissues. We are already engaged in preliminary efforts to fractionate brain mitochondria in order to test their content of enzymes that might be concerned with amino acid breakdown, such as the decarboxylases and monoamine acid oxidases.

4. Research on mentally retarded children will serve to give us important information on other causes due to inborn errors of metabolism and appropriately we have hospitalized mentally retarded children from state institutions in order to do metabolic experiments through the collection of urine and blood following amino acid tolerance loading as to evaluate the extra pattern of amino acids. (Waismann-Mental Retardation Proc 1st Int'l. Conference on Mental Retardation 1960). The Amino Acid Analyzer which we have been using has been helpful in elucidating urinary products of unknown origin, or in detecting changes in the pattern of urine acid excretion following loading tests with various amino acids.

5. Through the efforts of the research people in the laboratory we have been able to identify homocitrulline, a compound not previously found in biological material but previously known chemically as an artifact of protein hydrolysis. The opportunity to evaluate homocitrulline metabolism and its relationship to both arginine and lysine research requires opportunity for intensive research which is now not possible in the space presently available.

It is quite apparent that the present laboratories now occupied in the basement of Bradley Hospital have been outgrown and are outmoded for newer biochemical techniques which we wish to pursue. The help and cooperation of the Research Committee of the Graduate School would be appreciated in order to obtain the desired space for the Kennedy Laboratories. I would welcome hearing from you at the earliest possible moment since we have to make appropriate plans and specifications.

Sincerely yours,

H. A. Waismann, M.D., Ph.D.
Professor of Pediatrics

HAW:mc

U. W. NEWS

4/27/61 gmb

FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON 6, WISCONSIN

Immediately

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-more-

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Gal

March 31, 1961

Mr. R. Sargent Shriver
Mayflower Hotel
Washington, D. C.

Dear Mr. Shriver:

I am pleased that the Kennedy Foundation has decided to support my research program on mental retardation at the University of Wisconsin. President Elvehjem and Dean Bowers share my enthusiasm to establish the Joseph P. Kennedy, Jr. Laboratories under my direction.

In looking over the laboratory space available, President Elvehjem has suggested my suggestion to erect an additional floor on the top of the Children's Hospital rather than place the Kennedy Laboratories in the basement space. We plan to get matching money from the Health Research Facilities of the NIH in order to provide the space and facilities that will more properly enhance the research program. We are already working on plans and specifications so as to get more information on the final cost of this structure.

In reply to the several points in your letter we agree that several of the biochemists working in the Laboratories will be designated as Kennedy Scholars or Kennedy Fellows, according to their rank and experience.

The Kennedy Foundation will receive adequate recognition on the publications emanating from these Laboratories!

Appropriate accounting procedures are established in the Business Office of the Medical Center, and it would be helpful if there are any forms available from the Kennedy Foundation on which records can be maintained. An annual financial statement will be provided to the Foundation.

We will, of course, welcome a Visiting Committee from your Foundation according to the manner we previously discussed.

A descriptive booklet on the research program can be prepared in due time. If you have any such booklet from your other programs, we would welcome an opportunity to review them.

M. P. Sargent Shriver

cc

I assume that Mr. King will contact me regarding publicity. There will be considerable interest in this research support for the mass media in Wisconsin and elsewhere. If your representative has difficulty in contacting me, Dean Bowers will be pleased to be of assistance.

I will be away attending a scientific meeting from April 10th to April 13th. If Mrs. Shriver would like to come here after April 13th for the presentation of the check to President Elvehjem, I would be pleased to hear from her and make proper arrangements.

With best wishes,

Sincerely yours,

H. A. Waisman, M.D., Ph.D.
Professor of Pediatrics

RAW:mc

RESEARCH AT THE UNIVERSITY OF WISCONSIN MEDICAL CENTER

WAISMAN, OTHERS

Profs. Harry A. Waisman and V. H. Auerback of pediatrics and
L. Benjamin Wyckoff, psychology, have produced mental retardation in rats by
feeding them above normal amounts of the amino acid phenylalanine.

In human beings lack of an enzyme in the liver needed to convert this
same amino acid into tyrosin causes the hereditary mental illness phenylpyruvic
oligophrenia or phenylketonuria. This disease occurs in one on 25,000 births.

Implication of this discovery is the foothold it gives in the study of
metabolic abnormalities in mental disorders. It suggests that more diseases
which have no known organic cause can be studied in animals once the chemical
malfunction is described.

10/20/59

FEATURE STORY

FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON 6, WISCONSIN

12/23/58 eda

RELEASE: Immediately

By ED AEBISCHER

MADISON, Wis.--University medical scientists have produced mental retardation in rats by feeding them above normal amounts of the amino acid phenylalanine.

In human beings lack of an enzyme in the liver needed to convert this same amino acid into tyrosine, a crystalline amino acid essential to the diet, causes hereditary mental illness known as phenylpyruvic oligophrenia or phenylketonuria.

Amino acids form the chief structure of proteins.

Experiments conducted jointly by the departments of pediatrics and psychology show that rats which have fed on a diet designed to elevate the amount of phenylalanine in the blood stream fail simple discrimination tests. One evidence of failure is inability to repeat previously learned reaction patterns in order to get water.

Profs. Harry A. Waisman and V. H. Auerbach, pediatrics, and L. Benjamin Wyckoff, psychology, plan further tests with dogs and monkeys with the aid of a recent Public Health Service research grant. Monkeys will be given both discrimination and intelligence tests while on the special phenylalanine diet.

Important implication of this discovery is the foothold it gives in the study of metabolic abnormalities in mental disorders. Diseases of this type are related to abnormal chemical processes in the central nervous system.

It suggests that more diseases which have no known organic cause can be studied in animals once the chemical malfunction is described.

-more-

add one--phenylalanine

In the human system absence of the enzyme needed to convert phenylalanine to tyrosine adds an excess of this amino acid to the body fluids. This is excreted together with derivatives including phenylpyruvic acid. Some scientists think this substance influences normal reasoning in the brain.

Large amounts--25 to 35 times above normal--of phenylpyruvic acid left in the blood stream cause more extensive brain damage, the longer they circulate.

In most persons the amino acid phenylalanine is metabolized normally. However, in relatives of patients who carry the disease trait, there is a prolonged rise in phenylalanine-like substances in the body area after phenylalanine feeding.

These substances resemble those found in phenylketonurics as a result of the liver's failure to convert phenylalanine to tyrosine. Normally tyrosine is oxidized at this point and goes back into the system as amino acid for structural purposes.

Excretion of phenylpyruvic acid was a key factor in the first description of the disease by the Norwegian biochemist Folling in 1934. He found that it could be detected by a simple urine test in mentally retarded people due to the reaction between phenylpyruvic acid and the ferric chloride used in the test.

As a result this disease can be detected shortly after birth. In Dr. Waisman's studies, cases diagnosed early and treated by feeding only a low-phenylalanine milk during the first year have done better than expected.

Symptoms of this disease differ little from other mental illnesses. Delay in sitting, walking, talking, and generally slow motor and mental development are noted.

Incidence of phenylpyruvic oligophrenia in Wisconsin numbers three per cent of the state's 4,000 institutionalized mentally ill.

The disease is transmitted by a recessive gene. This means that both parents must carry the gene in order for a child to be affected. One in 80 persons is a carrier. By Mendelian laws the estimated frequency becomes one in 25,000 births.

The overall aim of studies at Wisconsin, reports Waisman, is to find biochemical or metabolic causes behind other mental illnesses, so that large groups of retarded people can be treated effectively.

U. W. NEWS

FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON 6, WISCONSIN

8/29/58 vh

RELEASE:

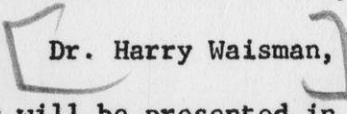
Immediately

MADISON, Wis.--Two early September meetings on the University of Wisconsin campus will bring many of the nation's leading pediatricians together to discuss important problems in pediatric research and education.

Approximately 100 research and academic persons in the branch of medicine concerned with child health and development are expected to attend the Symposium on Amino Acid and Protein Metabolism meeting Sept. 4 and 5 in the Wisconsin Center Building, Dr. Nathan Smith, chairman of the UW department of pediatrics, announced this week.

In the human body processes, the amino acids are building blocks necessary for the formation of proteins including anti-bodies, enzymes, muscle tissue, and other constituents in all cells of the body.

The symposium, sponsored by the UW Medical School's department of pediatrics and the Ross Laboratories, Columbus, Ohio, will further understanding of the amino acids' role in body building and maintenance.

 Dr. Harry Waisman, program chairman for the symposium, said the two-day meeting will be presented in four sessions under the titles: "Nutritional Aspects of Amino Acids and Proteins," "Functional Role of Amino Acids and Proteins," "Intermediary Metabolism of Amino Acids." and "Excretory Mechanism of Amino Acids."

Dean John Z. Bowers of the UW Medical School will greet the group and UW Pres. Conrad A. Elvehjem, a biochemist internationally known for his studies in nutrition, will chair the session on nutrition.

The following pediatricians and pediatric researchers from across the nation and from the UW campus are scheduled to serve either as speakers or discussion leaders:

-more-

add one--Pediatrics Symposium

L. Emmett Holt, Jr., New York University; Van R. Potter, UW McArdle Memorial Laboratory; James M. Price, UW department of clinical pathology; Alfred E. Harper, UW department of biochemistry; Nevin Scrimshaw, Institute of Nutrition of Central America and Panama, Guatemala; Mark Hegsted, Harvard University; Robert Good, University of Minnesota; Harold Deutsch, UW department of physiological chemistry; Howard A. Schneider, Rockefeller Institute, N. Y.; James Miller, UW McArdle Memorial Laboratory; Sol Spiegelman, University of Illinois; Nathan Kaplan, Brandeis University;

Norman Horowitz, California Institute of Technology; Thomas Riggs, University of Michigan; Sidney Weinhouse, Lankenau Hospital, Philadelphia; Martha Vaughan, and Simon Black, National Institutes of Health; Henry Barnett, Einstein Medical College, New York; Harold Harrison, Baltimore City Hospital; David Yi-Yung Hsia, Children's Memorial Hospital, Chicago; Norman Kretchmer, Cornell University, N. Y.; Wallace McCrory, University of Iowa; Eldon Sutton, University of Michigan; and Harry Harris, London College, England.

Many of the visitors will also attend the District VI meeting of the American Academy of Pediatrics, scheduled for a one-day session on Sept. 3, immediately prior to the symposium. These meetings will also be held in the Wisconsin Center. Academy members, drawn from faculties of American medical schools, will consider problems in pediatric education and also the formation of a central society for pediatric research.

Several speakers in the symposium program will also appear at the educators' meeting and the academy members will hear additionally from H. Kent Tenney and Charles C. Lobeck, UW department of pediatrics; John A. Bigler, Northwestern University; Frederick C. Moll, University of Illinois; Herbert C. Miller and Daniel C. Darrow, University of Kansas; Theodore C. Panos, University of Arkansas; John A. Anderson, University of Minnesota; and J. C. Peterson, Marquette University.

Coffee breaks will be spaced throughout the sessions at the symposium and a 7 p.m. dinner will be held for the group at the Ivy Inn on Sept. 4. The Academy will meet for both luncheon and dinner at the Wisconsin Center.

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No need for advance to No Goody

REPORT ON LEUKEMIA STUDIES

Harry A. Waisman

The prolongation of life that has occurred in children with acute leukemia has been due primarily to the utilization of three antileukemic drugs. The antifolic drug Amethopterin and the antinucleic acid derivative 6-mercaptopurine and the anti-inflammatory compound metacortin (Prednisolone) have all been nearly completely effective in overcoming the immaturity and abnormalities in the bone marrow due to the leukemic processes. Prior to the advent of these specific antimetabolites, children survived on an average of $5\frac{1}{2}$ months, but with the use of these drugs and greater experience during the past nine years, it has been possible to prolong life in most cases beyond one year of age to an average of about 15 months. These children are given pain-free existence and normal activity and can even attend school during the period of remission from the disease.

In an effort to understand the mode of action of these drugs and to obtain even better responses and more lengthy remissions in these patients, we embarked on a biochemical and metabolic study of the amino acid and protein metabolism in both leukemic patients and in rats with experimental leukemia. Qualitative studies showed earlier that certain amino acids, the essential building blocks of proteins, were higher in patients with leukemia than in normal patients. Now it has been demonstrated by J. J. Kelley in Dr. Waisman's

laboratory using quantitative methods, that certain amino acids in leukemic blood are always elevated. Paper chromatographic methods have shown that leukemic patients' blood contains more glutamic acid, phenylalanine, and leucine. Adult patients with chronic myelogenous and chronic lymphatic leukemia also had elevated levels of glutamic acid and phenylalanine. This was an interesting quantitative bit of information which allowed us to embark on a new line of investigation dealing with the role of phenylalanine and glutamic acid and their metabolism in the body of leukemic patients.

In a paper concerned with the enzymes dealing with glutamic acid, Dr. Waisman and his associates, Carl Monder and J. N. Williams, Jr. showed that the white blood cells of patients with leukemia contained much more of this enzyme than white cells from normal patients. The glutamic-oxalacetic transaminase level of white cells were similar in both leukemic and normal individuals.

Dr. Waisman made the observation earlier that hyperpigmentation developed in the skin of patients treated with antifollic drugs for a long time so that white children became noticeably darker if they survived for as long as a year. Proof of the increased melanin pigment in the skin was obtained by appropriate pathological sections of the skin. Since it was known that phenylalanine was high in the blood and that phenylalanine was a precursor for melanin formation, it was necessary to obtain a better understanding of how phenylalanine

converting enzymes were concerned with the formation of this pigment. Carl Monder with Dr. Waisman then embarked on a study on the nonenzymic conversion of phenylalanine and its metabolites to melanin, and these studies are now in progress.

Because every white cell has a nucleus and because all nuclei have nucleic acids and nucleoprotein we studied nucleic acid precursors (Willoughby and Waisman) and nucleotides in normal and leukemic blood. A comparison was made between those materials which are necessary for the formation of nucleic acids in both healthy and nucleic blood. The chromatograph obtained when leukemic blood is placed in a column of material and slowly extracted into those values, constituents showed that whole blood and white blood cells contained all of the known nucleotides, but in addition, contained some unidentified material not found in normal blood. Leukemic white blood cells contained an unknown substance which is probably either a breakdown product of, or closely related to some of the nucleotide precursors.

Recent work by Dr. Victor H. Auerbach and Dr. Waisman dealing with the amino acids and their metabolic enzymes in healthy and leukemic rats has shown that the observations first made in humans could now be confirmed in rats and in addition to phenylalanine and tyrosine, tryptophane was also elevated in the blood of leukemic rats. Here we had a tool to further investigate the enzymes concerned in the breakdown of amino acids because we had rats which showed all the signs and symptoms of acute leukemia. Those enzymes concerned with metabolism of these amino acids were found to be higher in

patients with leukemia, and it was found that the high phenylalanine plasma level was due in part to the absence of phenylalanine hydroxylase in the livers of the J rats.

Copies to McGrady & Larson

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Plaza 7-2700

NEWS SERVICE

MADISON



WITH THE AMERICAN CANCER SOCIETY ON TOUR

Dr. Harry A. Waisman
University of Wisconsin

April 2, 1958

SUMMARY

Scientists here noticed that leukemic children being treated with drugs which blocked folic acid use and nucleic acid formation eventually turned dark. They found that the amino acid, phenylalanine, which is a raw material from which the body makes pigment (melanin), was over-abundant in leukemic blood. The drugs apparently were acting on this amino acid in some way to produce pigment. They did this when they were effective enough to keep the sick children alive for a year or more.

The group now find several striking similarities of over-abundant amino acids in the blood not only of leukemic people but leukemic rats as well. Something in the leukemic patients is tying up the process which uses amino acids in proteins or breaks them down.

The amino acids involved are phenylalanine, which becomes tyrosine; tyrosine which becomes thyroid hormone; DOPA, which goes into adrenalin, non-adrenalin and melanin; tryptophane, which becomes serotonin and indole compounds; glutamic acid, essential to folic acid, and leucine -- representing a vast disturbance of the body's major protein, vitamin, hormonal and enzyme operations

They also find a strange substance in leukemic blood -- possibly a relative of nucleic acid raw materials.

The prolongation of life that has occurred in children with leukemia has been due primarily to the utilization of three antileukemic drugs. The antifolic drug Amethopterin and the antinucleic acid derivative 6-mercaptopurine and the anti-inflammatory compound metacortin (Prednisolone) have all been nearly completely effective

in overcoming the immaturity and abnormalities in the bone marrow due to the leukemic processes.

Prior to the advent of these specific antimetabolites, children survived on an average of five and one-half months, but with the use of these drugs and greater experience during the past nine years, it has been possible to prolong life in most cases beyond one year of age to an average of about fifteen months. These children are given pain-free existence and normal activity and can even attend school during the period of remission from the disease.

In an effort to understand the mode of action of these drugs and to obtain even better responses and more lengthy remissions in these patients, we embarked on a biochemical and metabolic study of the amino acid and protein metabolism in both leukemic patients and in rats with experimental leukemia. Qualitative studies showed earlier that certain amino acids, the essential building blocks of proteins, were higher in patients with leukemia than in normal patients.

Now it has been demonstrated by J. J. Kelley in Dr. Waisman's laboratory using quantitative methods, that certain amino acids in leukemic blood are always elevated.

Paper chromatographic methods have shown that leukemic patients' blood contains more glutamic acid, phenylalanine, and leucine.

Adult patients with chronic myelogenous and

and chronic lymphatic leukemia also had elevated levels of glutamic acid and phenylalanine.

This was an interesting quantitative bit of information which allowed us to embark on a new line of investigation dealing with the role of phenylalanine and glutamic acid and their metabolism in the body of leukemic patients.

In a paper concerned with the enzymes dealing with glutamic acid, Dr. Waismann and his associates, Carl Monder and J. N. Williams, Jr. showed that the white blood cells of patients with leukemia contained much more of this enzyme than white cells from normal people. The glutamic-oxalacetic transaminase level of white cells were similar in both leukemic and normal individuals.

Dr. Waismann made the observation earlier that hyperpigmentation developed in the skin of patients treated with antifollic drugs for a long time so that white children became noticeably darker if they survived for as long as a year. Proof of the increased melanin pigment in the skin was obtained by appropriate pathological sections of the skin.

Since it was known that phenylalanine was high in the blood and that phenylalanine was a precursor for melanin formation, it was necessary to obtain a better understanding of how phenylalanine converting enzymes were concerned with the formation of this pigment. Carl Monder with Dr. Waismann then embarked on a study on the nonenzymic conversion of phenylalanine and its metabolites

to melanin, and these studies are now in progress.

Because every white cell has a nucleus and because all nuclei have nucleic acids and nucleoprotein, we studied nucleic acid precursors (Willoughby and Waisman) and nucleotides in normal and leukemic blood. A comparison was made between those materials which are necessary for the formation of nucleic acids in both healthy and nucleic blood. The chromatograph obtained when leukemic blood is placed in a column of material and slowly extracted into those values, constituents showed that whole blood and white blood cells contained all of the known nucleotides, but in addition, contained some unidentified material not found in normal blood. Leukemic white blood cells contained an unknown substance which is probably either a breakdown product of, or closely related to, some of the nucleotide precursors.

Recent work by Dr. Victor H. Auerback and Dr. Waisman dealing with the amino acids and their metabolic enzymes in healthy and leukemic rats has shown that the observations first made in humans could now be confirmed in rats and in addition to phenylalanine and tyrosine, tryptophane was also elevated in the blood of leukemic rats.

Here we had a tool to further investigate the enzymes concerned in the breakdown of amino acids because we had rats which showed all the signs and symptoms of acute leukemia. Those enzymes concerned with metabolism of these amino acids were found to be higher in patients

with leukemia, and it was found that the high phenylalanine plasma level was due in part to the absence of phenylalanine hydroxylase in the livers of the J rats.

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UNIVERSITY OF WISCONSIN MEDICAL SCHOOL

MEDICAL CENTER ACTIVITIES

418 North Randall Avenue

March 28, 1958

ITEMS OF INTEREST

Under the auspices of the American Cancer Society, a group of science writers representing news organizations in many parts of the United States and foreign countries will visit the University of Wisconsin on April 2. These writers are on a tour of leading research centers in the United States and will cover the country's most significant advances in basic and cancer research. Members of the medical faculty to be interviewed include Drs. James Price, James Miller, Charles Heidelberger, G. A. LePage, Van Potter, Harry Waisman, John Bowers, Frederic Mols, Anthony Curreri, Robert F. Schilling and Harold Rusch.

The Departments of Botany, Zoology and the McArdle Labs. cordially invite all interested persons to attend a lecture by Prof. J. F. Danielli of King's College, London. Dr. Danielli will speak on "Transplantation of Nuclei in Amoeba", Monday, March 31 at 3:30 p.m., in Rm. 25 of the Bacteriology Building.

President Eisenhower has appointed Dean John Z. Bowers to the National Advisory Committee on Selection of Physicians, Dentists and Allied Specialists. Dean Bowers attended a meeting of the committee on Friday, March 28 in the Executive Office Building, Washington, D. C.

Dr. Harold F. Borenz, Psychiatry, attended a meeting of the Directors of Mental Retardation Projects held in Washington, D. C. March 24. Members from 17 states met to formulate cooperative goals in the long term studies being undertaken.

A refresher course for inactive nurses is currently being taught by Miss Helen McCune, Instructor in Nursing. Practice sessions for the group are held in the Wards of the University Hospitals.

Dr. Hans H. Reese, Neurology, has been elected to the Council of Medical Physics of the American Medical Association for a five year term.

Dr. H. P. Rusch, Oncology, attended a meeting of the National Cancer Committee of the International Union Against Cancer in Washington, D. C., March 21.

Dr. Harold E. Himwich, Director of Research, Galesburg State Research Hospital, Galesburg, Illinois, will visit the Medical Center for two days this week. While here he will lecture on "Some Thoughts on Antidepressants" at 8:00 p.m., Monday, March 31 in Rm. 305, S.M.I. and will also give the Loevenhart Memorial Lectureship, April 1 at 8:00 p.m., in the S.M.I. Auditorium. The title of this lecture is "Tranquillizing Drugs in Modern Medicine."

Dr. Reinaldo Barreto, Anesthesiology, has just returned from a visit to Corrientes, Argentina. It was his first return to his homeland in four years.

Dr. T. H. Bast, Anatomy, will present a paper "The Developmental Horizons of the Ear and Temporal Bone" at a meeting of the American Association of Anatomists in Buffalo, New York, March 31-April 5.

CALENDAR OF EVENTS

March

31 Proctoscopy Clinic, 7:30 a.m., Rm. 109, Hosp.
Muscular Dystrophy Clinic, 8:30 a.m., Rm. 125, Hosp.
P.Chem. Journ. Club, 12:30 p.m., Rm. 301, S.M.I.
Child Psychiatry, 12:30 p.m., Ped. Read. Rm.
Dermatology Grand Rounds, 1:00 p.m., 4E-4C, Hosp.
Thoracic Service Conf., 3:30 p.m., Rm. 402, Hosp.
44th Gen. Hosp. Unit, 7:30 p.m., Rm. 300, Hosp.
Psychopharm. Seminar, 8:00 p.m., Rm. 305, S.M.I.
"Some Thoughts on Antidepressants", Dr. Harold E. Himwich.

April

1 G.I. Clinic, (Gast. & Esoph.) 8:00 a.m., Rm. 109, Hosp.
Neurologic Clinic, 10:00 a.m., Rm. 134, Hosp.
Dept. of Medicine Lunch. Mtg., 12:00 M., Rm. 425, Hosp.
Pediatric Lecture, 12:30 p.m., Ped. Read. Rm.
Hematology Journ. Club, 1:00 p.m., Rm. 225C, Hosp.
Clinicopathologic Conf., 4:00 p.m., Bardeen Aud.
Loevenhart Memorial Lecture, 8:00 p.m., S.M.I. Aud.
"Tranquillizing Drugs in Modern Medicine", Harold E. Himwich, M.D.

2 Proctoscopy Clinic, 7:30 a.m., Rm. 109, Hosp.
Medical Research Sem. 12:00 p.m., Rm. 300, Hosp.
Neurosurg-Ped. Clinic, 12:15 p.m., Ped. Read. Rm.
Neuroradiology Conf., 1:30 p.m., X-Ray, Hosp.
Lab. of Medicine Conf., 1:30 p.m., State Lab of Hygiene Aud. "Pre-Invasive Carcinoma and Its Relation to Pregnancy". Dr. Ben Peckham, Ob-Gyne.
Anesthesia Conf., 1:30 p.m., Rm. 602, Hosp.
EEG Conf., 3:30 p.m., Rm. 102, Bradley
Micro-Neuro Conf., 4:30 p.m., Rm. 402, Hosp.
Medical Residents' Journ. Club, 6:00 p.m., Cafeteria
Med. Res. Case Review Session, 7:00 p.m., Rm. 402, Hosp.
Ob-Gyne. Hosp. Dept. Mtg., 7:00 p.m., Library 3B

3 G.I. Clinic (Gast. & Esoph.) 8:00 a.m., Rm. 109, Hosp.
Tumor Research Conf., 8:00 a.m., Rm. 225, McArdle
Pediatric Rounds, 12:15 p.m., Rm. 426, Hosp.

Psychiatric Inst. Conf., 2:00 p.m., Diagnostic Center
Aud. "Profile of An Alcoholic", Mark R. Kilp,
Exec. Dir., Wisconsin Council on Alcoholism.
X-Ray Conf., 4:00 p.m., X-Ray, Hosp.
Anesthesiology Journ. Club, 4:00 p.m., Rm.402, Hosp.

4 Proctoscopy Clinic, 7:30 a.m., Rm. 109, Hosp.
Neurology Grand Rounds, 8:00 a.m., 2W, Hosp.
Orthopedic Surg. Conf., 8:30 a.m., 5W, Hosp.
Pediatric Radiology Conf., 11:00 a.m., Ped. Read. Rm.
Psychosomatic Conf., 11:00 a.m., Rm. 402, Hosp.
M.E.N.D., 12:00 Bardeen Aud.
Neurology Staff Mtg., 12:30 p.m., Lorenz Rm., Hosp.
Plastic Surg., 12:30 p.m., Ped. Read. Rm.
Medical Chest Conf., 3:00 p.m., Rm. 402, Hosp.
Oncology Journ. Club, 3:45 p.m., Rm. 225, McArdle
Medicine Round Table, 4:00 p.m., Rm. 300, Hosp.

5 G.I. Clinic (Gast. & Esoph.) 8:00 a.m., Rm. 109, Hosp.
Orthopedic Surg. Conf., 8:30 a.m., Childrens Hosp.
Surg. Grand Rounds, 9:00 a.m., Rm. 602, Hosp.
Surg. Conf., 10:00 a.m., Rm. 402, Hosp.
Cardio-Vascular Conf., 8:00 a.m., Rm. 402, Hosp.

Miss Lydia Petrich, RRL, Chief Medical Record Librarian, presided at the afternoon meeting of the Wisconsin Association of Medical Record Librarians on Monday, March 17. For the coming year she will serve on the publicity and public relations committee of the state association.

Basic Science Departments are reminded that nominations for U. S. Public Health Service Senior Research Fellowships should be submitted to the Medical School Committee on Scholarships and Fellowships. The deadline for receipt of applications by the N.I.H. is July 1, 1958.

UNIVERSITY OF WISCONSIN MEDICAL SCHOOL

MEDICAL CENTER ACTIVITIES

418 North Randall Avenue

March 7, 1958

NOTICE

All departments sending representatives to the Federation of American Sciences meetings in April must have their Request for Out-of-State Travel forms and a letter of justification into the Medical School Administration Office not later than March 15. Each individual request must be included in a group of the entire personnel of the University attending these meetings and must be approved ten days before the date of the first meeting.

ITEMS OF INTEREST

A new type of postgraduate course is being presented by the Department of Pediatrics at the request of the Wisconsin Academy of General Practice. It consists of six two-hour sessions given on six separate days, starting March 12 and continuing March 19, April 2, 9, 23 and 30. Each session will consist of 30-45 minute formal presentations with the remainder of the first

hour being allowed for discussion. The second hour of each session will be clinical demonstration and patient presentation. Members of the faculty taking part in the program, for which 12 hours of credit in Category I is being given, include Dr. Nathan J. Smith, Dr. K. McDonough, Dr. H. W. Virka, Dr. David W. Smith, Dr. W. T. Bruns, Dr. H. M. Borenz, Dr. G. H. Maxwell, Dr. S. B. Crepea and Dr. H. A. Waisman.

Dr. Kenneth E. Lemmer, Surgery, attended the Central Surgical Association Meeting in Columbus, Ohio, Feb. 19-22, attending a Council meeting on the 19th and on the 21st presenting a report from the American College of Surgeons to the Society.

The Dane County Medical Society is presenting a lecture, "Newer Procedures and Materials in Vascular Surgery" by Dr. John T. Phelan, Dr. E. E. Skroch and Dr. Luther E. Holmgren, Tuesday, March 11 at 8:00 p.m. at the State Medical Society Bldg.

Dr. Edgar S. Gordon, Medicine, will lecture on "The Metabolic Pattern of Atherosclerosis" at a postgraduate course sponsored by the Chicago Medical Society at Chicago, Mar. 7.

Drs. Peter A. Duehr and John V. Berger, Jr., Surgery (Ophthalmology) attended the Clinical Conference Session of the Chicago Ophthalmological Society on Feb. 21 and 22.

Dr. H. Vermund, Radiology, was in New York City the first of this month to attend the Meeting of the Advisory Committee on Research on the Therapy of Cancer of the American Cancer Society.

On March 6, Dr. Van R. Potter, Oncology, lectured at the University of Illinois to the American Chemical Society on "The Biosynthesis of Nucleic Acids."

As a member of the Advisory Committee on Etiology of Cancer of the American Cancer Society, Dr. James A. Miller, Oncology, attended a meeting of the committee in New York City.

CALENDAR OF EVENTS

March

10 Proctoscopy Clinic, 7:30 a.m., Rm. 109, Hosp.
Luscular Dystrophy Clinic, 8:30 a.m., Rm. 125, Hosp.
P.Chem. Journ. Club, 12:20 p.m., Rm. 301, S.M.I.
Dermatology Grand Rounds, 1:00 p.m., 4E-4C, Hosp.
Thoracic Service Conf., 3:30 p.m., Rm. 402, Hosp.
44th General Hosp. Unit, 7:30 p.m., Rm. 300, Hosp.

11 G.I. Clinic, (Gast. & Esoph.) 8:00 a.m., Rm. 109, Hosp.
Neurologic Clinic, 10:00 a.m., Rm. 134, Hosp.
Pediatric Lecture, 12:30 p.m., Ped. Read. Rm.
Hematology Journ. Club, 1:00 p.m., Rm. 225C, Hosp.
Clinicopathologic Conf., 4:00 p.m., Bardeen Aud.

12 Proctoscopy Clinic, 7:30 a.m., Rm. 109, Hosp.
Neurosurgical-Ped. Clinic, 12:15 p.m., Ped. Read. Rm.
E.C.G. Seminar, 12:30 p.m., Rm. 402, Hosp.
Neuroradiology Conf., 1:30 p.m., X-Ray, Hosp.
Lab. of Medicine Conf., 1:30 p.m., State Lab. of
Hygiene Aud. Dr. Wm. L. Lea, Industrial Hygiene Div.,
State Board of Health.
Anesthesia Conf., 1:30 p.m., Rm. 602, Hosp.
Brain Section, 3:00 p.m., Rm. 501, S.M.I.
Medical Residents' Journ. Club, 6:00 p.m., Cafeteria
Med. Res. Case Review Session, 7:00 p.m., Rm. 402, Hosp.
Ob-Gyn. Journ. Club, 7:00 p.m., Library 3B.

13 G.I. Clinic, (Gast. & Esoph.) 8:00 a.m., Rm. 109, Hosp.
Pediatric Grand Rounds, 12:15 p.m., Rm. 300, Hosp.
Psychiatric Inst. Conf., 2:00 p.m., Diagnostic Center
Aud. "Professional Roles and Inter-professional
Relations." Louis H. Orzack, Soc. & Anthropology.
X-Ray Conf., 4:00 p.m., X-Ray, Hosp.
Anesthesiology Journ. Club, 4:00 p.m., Rm. 402, Hosp.

14 Proctoscopy Clinic, 7:30 a.m., Rm. 109, Hosp.
Neurology Grand Rounds, 8:00 a.m., 2W, Hosp.
Orthopedic Surg. Conf., 8:30 a.m., 5W, Hosp.
Ped. Radiology Conf., 11:00 a.m., Ped. Read. Rm.
Psychosomatic Conf., 11:00 a.m., Rm. 402, Hosp.
H.E.N.D., 12:00 M., Bardeen Aud.

March

14 Neurology Staff Mtg., 12:30 p.m., Lorenz Rm., Hosp.
Ped. Journ. Club, 12:30 p.m., Ped. Read. Rm.
Medical Chest Conf., 3:00 p.m., Rm. 402, Hosp.
Oncology Journ. Club, 3:45 p.m., Rm. 225, Hosp.
Medicine Round Table, 4:00 p.m., Rm. 300, Hosp.

15 G.I. Clinic (Gast. & Esoph.) 8:00 a.m., Rm. 109, Hosp.
Cardio-Vascular Conf., 8:00 a.m., Rm. 402, Hosp.
Orthopedic Surg. Conf., 8:30 a.m., Childrens Hosp.
Surgery Grand Rounds, 9:00 a.m., Rm. 602, Hosp.
Surgery Conf., 10:00 a.m., Rm. 402, Hosp.
Tumor Clinic, 11:00 a.m., Rm. 300, Hosp.

ITEMS OF INTEREST (Cont'd.)

Joshua Lederberg, Medical Genetics, will speak on "The Versatility of Bacterial Reproduction" at the Phillips Distinguished Visitor Program at Haverford College, Haverford, Pennsylvania, March 11-13.

Dr. Nathan J. Smith, Pediatrics, will participate in a postgraduate course given at Kansas City, Kansas. The titles of his lectures are "Disorders of Blood in the New-born" and "Recent Advances in Platelet Physiology and Problems in Thrombocytopenia."

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* Would all faculty members who have had

and will have material published from

July 1, 1957 through June 30, 1958.

* the Business Office as soon as they are

* obtained. If an article or paper is in

* printing as of June 30, it will be in-

* included in the bound volume of the following. *

ing year.

U.W. NEWS

FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON 6, WISCONSIN

9/7/57

RELEASE:

Immediately

MADISON, Wis.--An initial \$32,987 grant from the National Institutes of Health to support the first year of a five-year research program on leukemia by [redacted] Prof. Harry A. Waisman of the University of Wisconsin Medical School was accepted by the UW regents Saturday.

The grant is the first of five totalling \$165,000 which will be expended in the program.

Dr. Waisman will study the changes in body chemistry which occur in human beings and animals when they develop leukemia. He will also conduct research on the clinical use of existing anti-leukemic drugs and new drugs as they become available.

A pediatrician, Dr. Waisman points out that cancer and leukemia are the second greatest cause of death in children, exceeded only by accidents.

By combining the biochemical studies with clinical research, clues to the cause of leukemia may be uncovered and lead to development of chemicals more effective than existing ones for treating the disease, Waisman said.

He pointed out that the grant will permit expansion of the leukemia research which he has been conducting for several years. The work has been concerned with abnormal chemical balances in the blood and tissues of leukemia patients and, more recently, the testing of drugs which offer temporary relief and prolong life.

Dr. Waisman adds that the blood levels of certain of the amino acids--phenylalanine, tyrosine, glutamic acid, for example--are higher in leukemia patients than in normal individuals. This provides a research clue which may lead to improved

ad one--Waisman

understanding of the disease.

Under the new grant, it will be possible to explore five research approaches:

1. Development of the most effective methods of treatment with drugs;
2. Studies of amino acid and protein metabolism of leukemia patients and changes in metabolism brought about by treatment with drugs;
3. Studies of the amino acid and protein metabolism of rats with induced leukemia;
4. Development of methods, if possible, to restore amino acid metabolism to normal in leukemia patients;
5. Studies of the changes in enzyme patterns in the white blood cells of leukemia victims.

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U. W. NEWS

Bioy

FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON 6, WISCONSIN

8/2/57 jl

RELEASE:

Immediately

MADISON, Wis. [Dr. Harry A. Waisman,] associate professor of pediatrics at the University of Wisconsin Medical School, has been awarded a \$2,500 research grant by the Leukemia Society, Inc., New York, to help support his research program on leukemia in children.

The grant is to be used to support studies of various biochemical aspects of leukemia in animals and man, and for testing the effects of several drugs which have been shown useful in prolonging the life of children who have developed cancer of the blood.

By combining biochemical studies on laboratory animals and clinical research with patients, Dr. Waisman points out, there exists the possibility that clues to the cause of leukemia may be uncovered and lead to the development of chemicals more effective than existing ones for treating the disease.

Dr. Waisman adds that cancer and leukemia are the second greatest cause of death in children, second only to accidents.

The Leukemia Society was established in 1949 to help support research on leukemia, and this is the second annual grant to Dr. Waisman provided by the society.

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WIRE NEWS

FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON 6, WISCONSIN

RELEASE:

1/9/57 1h

Immediately

MADISON--Dr. Harry A. Waisman, associate professor of pediatrics at the University of Wisconsin Medical School, has been appointed to the Study Section on Human Embryology and Development of the National Institutes of Health, Bethesda, Md. The group is studying the normal growth and development of the human embryo, malformations of the embryo, and growth and development of the child.

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U. W. NEWS

FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON 6, WISCONSIN

4/16/55

RELEASE: Immediately

MADISON, Wis.--Nine separate grants from the American Cancer Society for research at the University of Wisconsin were among the \$519,797.41 in gifts and grants accepted by the UW regents Saturday.

A 10th grant for cancer research in the Medical School's department of clinical pathology was accepted from the Damon Runyon Memorial Fund for Cancer Research, Inc.

The regents also accepted \$250,000 from the Rockefeller Foundation, New York, to support a vastly expanded research program on ways of utilizing the energy of sunlight, and \$30,000 from the Carnegie Corp., New York, toward support of visiting professorships in British Commonwealth History. The regents accepted \$30,000 from the John and Mary R. Markle Foundation, New York, to support the work of Dr. George G. Rowe, research associate in medicine in the Medical School, for a five-year period.

A \$34,992 fund from the National Institutes of Health was accepted by the UW regents for research in the University's Primate Laboratory, and \$22,000 was accepted from the National Science Foundation for physcial and chemical studies of fumarase.

Amounts and recipients of the American Cancer Society grants are: \$1,944, Prof. M. J. Johnson, department of biochemistry; \$8,100, Prof. Henry Lardy, Enzyme Institute; \$8,000, Dr. J. M. Price, Medical School; \$5,150 and \$12,540, Prof. A. J. Riker, department of plant pathology; \$6,966, Profs. H. P. Rusch and R. K. Boutwell, McArdle Memorial Laboratory for Cancer Research; \$8,100, Prof. Folke Skoog, department of botany; \$5,292, [Dr. Harry A. Waisman, Medical School; \$3,000, Salih J. Wakil, Enzyme Institute.



AMERICAN CANCER SOCIETY

521 West 57th Street • New York 19, N. Y.
Plaza 7-2700

NEWS SERVICE

4/6/55

MADISON, WIS. -- A University of Wisconsin scientist has found a defect in the protein-manufacturing ability of people ill with leukemia, the incurable cancer of the blood and blood-forming tissues.

This was announced today by the American Cancer Society, reporting on society-supported research by Dr. Harry A. Waisman, associate professor of pediatrics in the University of Wisconsin Medical School.

Seeking a clue as to the mechanism of the chemical defect in humans with leukemia, Dr. Waisman is attempting to reproduce the condition in laboratory rats and other experimental animals.

Dr. Waisman has found that the blood of treated and untreated leukemic patients has an extraordinary amount of some free amino acids, the building blocks of protein. The fact that these substances remain unused and eventually are excreted may account for the wasting effects of leukemia. With the disease most patients sooner or later start to lose weight. And their protein-building capacity is so impaired that the production of normal white cells may be decreased.

In his attempt to duplicate the chemical defect in animals, Dr. Waisman is substituting "false" amino acids for the real ones produced by nature. With these in the diet, animals lose weight and cannot build the right protein because the building blocks do not fit.

Among the antagonist amino acids being used by Dr. Waisman are ethionine, a synthetic substitute for natural methionine, and

6-methyltryptophane, for natural tryptophane. Either of these compounds in the diet interferes with the growth of animals. Growth is resumed when the real amino acid is added to the food.

Special strains of leukemic mice will be used to test the influence of these amino acid deficiencies on the leukemia transplanted to the animals.

Dr. Waisman first noted the peculiar protein defect a few years ago in treating leukemic youngsters with a false B-vitamin called aminopterin. He observed that the skin darkened and pathologists identified specimens as being pigmented similar to dark sun-tanning.

Knowing that tyrosine was one of the amino acids from which pigment is made, Dr. Waisman suspected that something was wrong with the leukemic patients' protein-manufacturing process. His investigation disclosed the excess of amino acids in their blood.

Dr. Waisman also found that leukemic blood plasma has three times the normal amount of transaminase, an enzyme which transfers nitrogen-containing groups of atoms from one amino acid to another. He is exploring the significance of this finding.

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U. W. NEWS

FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON 6, WISCONSIN

4/1/55

RELEASE:

Immediately

NOTE TO EDITORS: With this story we are enclosing summaries of some of the papers to be given in the future. Since the release times are set in accordance with the times that the reports are to be given, your care in adhering to the designated release time will be appreciated.

MADISON, Wis.--Ten scientific papers, reporting advances in cancer research by scientists at the University of Wisconsin, will be presented at the 46th annual meeting of the American Association for Cancer Research in San Francisco, April 14-17.

Twenty-one scientists from the McArdle Memorial Laboratory and the Tumor Clinic of University Hospitals will attend the four day meeting to be held immediately following the session of the Federation of American Societies for Experimental Biology.

Authors of papers include P. M. Bhargava, Charles Heidelberger, Harry A. Waisman, Carl Monder, J. N. Williams, R. K. Maller, A. R. Curreri, Francis R. Russo, R. K. Boutwell, H. P. Rusch, Dorothy Bosch, R. R. Brown, J. M. Price, John B. Wear, Liselotte Hecht, Van R. Potter, Marjorie G. Moldenhauer, J. A. Miller, J. C. Arcos, E. C. Miller, and Yasuyuki Takagi.

Those attending the meeting include H. P. Rusch, G. C. Mueller, R. K. Boutwell, Charles Heidelberger, G. A. LePage, A. R. Curreri, J. M. Price, R. R. Brown, Harry A. Waisman, J. F. Fernandes, C. R. Diniz, R. P. Rastogi, Gideon Rumney, Liselotte Hecht, M. P. Edmunds, J. W. Daniel, Yasuyuki Tagaki, P. M. Bhargava, K. C. Leibman, R. K. Maller, and W. W. Zillig.

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U.W. NEWS

4/1/55

FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON 6, WISCONSIN

3 p.m. Tuesday, April 12, 1955

RELEASE:

SAN FRANCISCO, Calif. (April 12)--An enzyme found in white blood cells for the first time by three University of Wisconsin scientists is more abundant in the blood of cancer patients than in normal individuals.

Isolation of glutamic acid dehydrogenase from white blood cells was announced Tuesday by [Dr. Harry W. Waisman,] associate professor of pediatrics; Carl Monder, research assistant in medicine; and J. N. Williams, associate professor of biochemistry, in a paper prepared for the American Society of Biological Chemists meeting in San Francisco.

Dr. Waisman reported that the enzyme is found in the white blood cells of both cancerous and healthy persons, but is present in greatly increased amounts in patients with cancer and leukemia.

(Stated simply, an enzyme is a chemical which triggers chemical reactions in the body without itself changing chemical structure.)

Glutamic acid dehydrogenase is concerned with the chemical breakdown of glutamic acid, an essential amino acid. Amino acids are protein building blocks.

Because of their interest in the chemical processes of patients with leukemia, Dr. Waisman and his associates began seeking the white blood cell enzyme. It had been found that the blood of these patients showed sharp increases in certain amino acids, among them glutamic acid. The scientists found the enzyme associated with glutamic acid metabolism in the white blood cells. It was not discovered in the red blood cells or plasma.

Dr. Waisman said studies are continuing on other enzymes concerned with the particular amino acids found in increased amounts in the blood of cancer and leukemic patients.

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MADISON NEWS

4/29/54

FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON 6, WISCONSIN

RELEASE:

Immediately

[Dr. Harry A. Waisman,] associate professor of pediatrics in the University of Wisconsin Medical School, will attend meetings of the Society for Pediatric Research and the American Pediatric Society in Buck Hill Falls, Pa. The meetings will be held May 2 to 5.

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U. W. NEWS

FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON 6, WISCONSIN

7/12/52

RELEASE:

Immediately

MADISON, Wis.--Three faculty appointments were approved by University of Wisconsin regents Saturday, two of them in the Medical School.

The regents named Dr. Frederick E. Shideman as professor of pharmacology and toxicology, effective September 1. Dr. Shideman will replace Dr. O. S. Orth, who has been transferred to the newly-created department of anesthesia. Dr. Shideman received his B.A. at Albion College, Mich., in 1936; his Ph.D. at Wisconsin in 1941; and his M.D. at the University of Michigan in 1946. He has been at Michigan since July, 1942, first as a research fellow and then as a faculty member. He is the author or co-author of 46 publications.

In another Medical School action the regents appointed Dr. Harry Waisman as associate professor of pediatrics for 1952-53. He holds four UW degrees--the B.S. in 1935, M.S. in 1937, Ph.D. in 1939, and M.D. in 1947. He has been on the staff of the University of Illinois College of Medicine.

The regents also named Preston C. Hammer as associate professor of mathematics. His assignment will be to build up a teaching and training program in connection with computing. He will replace Prof. K. J. Arnold, who formerly headed the computing service. Prof. Hammer is a 1934 graduate of Kalamazoo College, has an M.A. from the University of Michigan and a Ph.D. from Ohio State. He has taught previously at Michigan and Oregon State College, and comes to the UW from positions as group leader of hydrodynamics and IBM group, and mathematics and hydrodynamics group at Los Alamos.

DR. HARRY A. WAISMAN
Professor of Pediatrics
University of Wisconsin Medical School

University of Wisconsin
News and Publications Service

Dr. Harry A. Waisman, professor of pediatrics and director of the Joseph P. Kennedy Jr. Memorial Laboratory at the University of Wisconsin Medical School, has been concerned since 1956 with the study of mental retardation due to "inborn errors" of metabolism.

Dr. Waisman's work centers on a long-term study of the biochemistry of mental retardation. He hopes to gain an understanding of the chemical causes of mental retardation and develop methods of prevention.

Working with hereditary diseases which produce mental retardation, he found that in one such disease, phenylketonuria (PKU), affected children who are diagnosed early enough can develop normally if put on a special diet.

In 1957 he initiated a treatment program throughout Wisconsin, and in 1963 a medical motion picture was produced under his direction to show physicians how to spot PKU babies. Dr. Waisman and his group have also found other diseases which produce mental retardation.

Prior to 1956, Dr. Waisman worked on cancer and leukemia in children. His earlier studies, many done in collaboration with the late UW President, C. A. Elvehjem, concerned vitamins and nutrition.

Dr. Waisman joined the faculty of the University of Wisconsin Medical School in 1952 as an associate professor of pediatrics, coming from the University of Illinois College of Medicine, where he had been assistant professor of pediatrics.

He holds four degrees from the University of Wisconsin. They are: B.S., in organic chemistry, 1935; M.S., biochemistry, 1937; Ph.D. biochemistry, 1939; and M.D., 1947. He served his internship in 1948 at the Research and Educational Hospitals, University of Illinois, and his residency, 1948-1950, at the University of Illinois College of Medicine.

Waismann biography--2

Dr. Waismann is certified by the American Board of Nutrition and the American Board of Pediatrics, and is a fellow of the American Academy of Pediatrics, Child Development Section.

He has membership in many professional and honorary societies. Included among them are the American Association for the Advancement of Science, the American Society of Biological Chemists, Society for Experimental Biology and Medicine and the American Association for Cancer Research.

Dr. Waismann and his wife live at 4625 Gregg Rd., Madison. They have three children, two boys and a girl.

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Immediately

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For further information, contact Nancy McElreath--(608) 263-5837

WAISMAN CENTER ON MENTAL RETARDATION INVITES PUBLIC TO DEDICATION SUNDAY

It has been estimated that by 1975 there will be more than 100,000 developmentally disabled people in Wisconsin--approximately half will be mentally retarded. The people at the new Waisman Center are working together to make life better for those handicapped people of the state.

The Waisman Center on Mental Retardation and Human Development, at the far west end of the University of Wisconsin-Madison campus, is a new symbol of the restructured national and state approach to solving the problems of the mentally handicapped.

The citizens of Wisconsin will be able to see the new Waisman Center and some of the work that goes on inside when the building is officially dedicated at 3:30 p.m. on Sunday, Oct. 7.

In that eight-story, eight-million dollar structure of laboratories, clinics, and classrooms, hundreds of faculty and students from many departments of the University are working together to find the causes of mental retardation and other developmental disabilities, and the methods of preventing those conditions.

The Waisman Center is one of the few centers of its kind in the nation combining basic research and training of professionals. Its scientists and clinicians include biomedical and behavioral and social science investigators, pediatricians, psychiatrists, nurses, social workers, teachers, vocational rehabilitation counselors, nutritionists, audiologists, and many others.

Add one--Waisman Center

In the Center's research units scientists cooperate with researchers at the Central Wisconsin Colony and Training School in Madison. The Center also has training units composed of education-rehabilitation specialists and diagnostic and treatment clinicians.

The Center is named for the (late Dr. Harry A. Waisman,) University scientist and humanitarian in the field of mental retardation.

The formal dedication in the Center Auditorium will include remarks by the Waisman Center Director Dr. Rick Heber and UW-Madison Vice Chancellor Dr. Irving Shain. Wisconsin's Congressman Robert W. Kastenmeier will give the main address.

Following the brief ceremony the building will be open for tours and a reception in the eighth floor lounge.

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From the University of Wisconsin-Madison/University News and Publications Service,
Bascom Hall, Madison 53706/Telephone (608) 262-3571

Immediately

5/8/72 jb

MADISON--The correct name given to a new building on the Madison campus of the University of Wisconsin is "The Harry A. Waisman Center on Mental Retardation and Human Development."

When the UW System regents approved the naming last Friday, the title was inadvertently listed as "The Harry A. Waisman Mental Development Center."

Now under construction at Marsh Lane and University Bay Drive on the west side of the campus, the facility was named in memory of the late Dr. Waisman, a renowned leader in the fight against mental retardation who died at 58 in March 1971. He was a member of the UW faculty for 21 years.

The original story also stated incorrectly that the facility would include a school for mentally retarded children operated by the Madison Public School System. While the new center will work closely with the Madison system, the special school will be operated by the center.

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CURRICULUM VITAE

HARRY A. WAISMAN

PERSONAL DATA

Born April 25, 1912 in Milwaukee, Wisconsin
1935 B.S., University of Wisconsin (Organic Chemistry)
1935-36 Graduate Research in Biochemistry
1936-37 Fellow in Biochemistry
1939-40 Post-Doctorate
1940-44 Research Associate
1937 M.S. degree in Biochemistry, University of Wisconsin
1939 Ph.D. in Biochemistry, University of Wisconsin, minor in organic chemistry and physiology
1940 Research Associate in Biochemistry, University of Wisconsin
1947 M.D. received from University of Wisconsin Medical School
1947-48 Intern - Research and Educational Hospitals, University of Illinois
1948-50 Resident in Pediatrics, University of Illinois College of Medicine
1949-50 Research Associate in Pediatrics, University of Illinois
1950-52 Assistant Professor of Pediatrics, University of Illinois
1952- Associate Professor of Pediatrics, University of Wisconsin

PROFESSIONAL AND HONORARY SOCIETIES

American Society of Biological Chemists
American Association for the Advancement of Science
Society for Experimental Biology and Medicine
Society for Pediatric Research - Vice President, 1956-57
American Association for Cancer Research
Central Society for Clinical Research
Phi Lambda Upsilon
Gamma Alpha
Sigma Xi
American Federation for Clinical Research

AWARDS

Borden Award for Research while in Medical School (University of Wisconsin) 1947
Playtex Fellow in Pediatrics (University of Illinois) 1949-51
Consultant - United States Public Health Service 1957-
Member - Committee on Nutrition, American Academy of Pediatrics 1956-

PUBLICATIONS

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Nature and Partial Synthesis of the Chick Antidermatitis Factor. D. W. Woolley, H. A. Waisman, and C. A. Elvehjem. J. Amer. Chem. Soc. 61:977 (1939).

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Meat, A Body Builder. H. A. Waisman, R. W. Bray and Iva Mortimer. Wisconsin Medical Journal, April 1942, page 312

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Recommended for promotion to Professor.