The NIH Record

U.S. Department of Health and Human Services

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National Institutes of Health

'Pay or Appear' Policy, New Fine Schedule Mark Changes in Traffic Court

Since May 1, employees are paying more for most motor vehicle violation tickets issued at NIH because of a change in the collateral schedule by the Federal court in Baltimore.

In addition, procedural changes regarding the paying of tickets and scheduling of court appearances have come about due to computerization of the judicial system—thus reducing significantly the time in which one has to pay for a ticket or when one must appear in court.

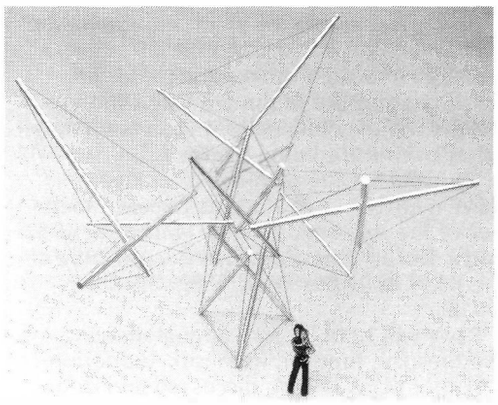
A new "pay or appear" policy has gone into effect requiring payment within 7 days, and now allows a case to be heard within 4 or 5 weeks rather than the 3 to 6 months it had previously taken.

Prior to this month, an NIH employee had 7 days to either pay a fine or request a court date. If the court did not hear from an individual under the old system within a month, a dunning letter was sent informing employees that they should pay their fine.

If after the letter was sent, and the court still had no response, then a second letter was sent summoning the NIH employee to appear in court on a particular day.

The new system has dropped the dunning letter and is instead automatically mailing "pay or appear" letters to persons who have received tickets after a 7-day grace period has lapsed.

(See TICKETS, Page 12)



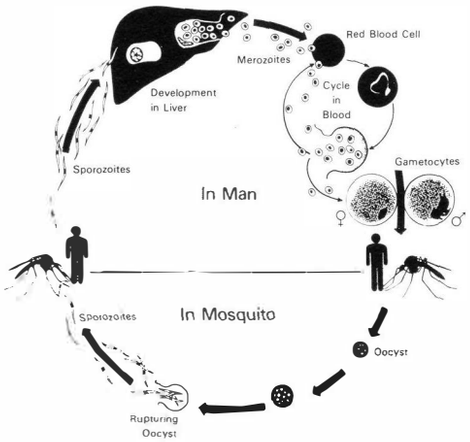
The new NLM sculpture will give an effect of suspension without support (see page 5).

Progress on Parasitic Vaccine Development Reported at Recent Science Writers' Seminar

At a recent Science Writers' Seminar held at NIH, intramural investigators from the National Institute of Allergy and Infectious Diseases told some 40 attendees of the difficulties faced in developing vaccines against malaria and schistosomiasis and research approaches and advances against these two important parasitic diseases.

Malaria continues to take a frightful toll and is now increasing, especially in tropical Africa. The cost of schistosomiasis, which afflicts some 200 million in developing countries throughout the world, is primarily in terms of chronic illness.

Malaria Life Cycle



There is great interest in developing vaccines against these diseases because traditional methods of controlling them have largely failed. For malaria, which is transmitted by infected mosquitos, control measures are inadequate because of problems of cost, drug resistance, and insecticide resistance.

The need to feed large populations has required more irrigative agriculture, which has led to more breeding sites for the fresh water snail that participates in transmitting schistosomiasis.

At the same time that traditional control methods are failing, rapid advances in immunology have fueled the rising expectations that vaccines are feasible. Since the course of both diseases indicates some natural immunity—that is, that the body itself mounts an attack on the invading organisms—vaccine development seems possible.

But, according to the NIAID investigators, vaccine development against parasites will not be as easy as that for viruses, because of the complex life cycles of the infecting organisms and because of their remarkable ability to fend off attacks from the body's immune system.

Dr. Franklin A. Neva, chief, Laboratory of Parasitic Diseases, moderated the seminar.

Drs. Louis H. Miller, chief, Malaria Sec-

(See VACCINE, Page 9)

Three-Year Project Announced to Study Maternal Diabetes, Congenital Malformations

A 3-year clinical study to determine the relationship between maternal diabetes and congenital malformations was recently announced by the National Institute of Child Health and Human Development.

Entitled the Diabetes in Early Pregnancy Project, the study will determine whether careful control of a mother's diabetes during the first 3 months of pregnancy can reduce the risk of birth defects. The study will also try to uncover the mechanism by which diabetes can cause malformations.

Diabetes is a disorder in which the body is unable to use sugar as a source of energy because of insufficient production of the hormone insulin. Pregnancy intensifies the problem by increasing the mother's need for the hormone.

Before insulin was discovered in the early 1920's, pregnancy often meant death for the diabetic woman and her infant. Thanks to improved management of the disease during pregnancy, maternal and infant mortality have since dropped dramatically.

The incidence of birth defects, however,

(See DIABETES, Page 9)

The NIH Record

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Lose Weight Over 10 Weeks; Next Diet Workshop Starts June 15

Members of the Diet Workshop lost 111 pounds in the last 6 weeks. An open house for the next session will be held Monday, June 15, for the class that begins June 22, in Bldg. 31, Rm. 11A-10, from noon to 1 p.m.

The cost for the 10-week program is $50. For more information call 587-DIET. □

Training Tips

The following courses, sponsored by the Division of Personnel Management, are given in Bldg. 31.

Office Skills	*Course Starts*	*Deadline*
Files Maintenance and Improvement	6/17	6/3
	6/25	5/28
	7/8	6/24
Communication Skills		
Reading Management	6/2	5/15
Summer Employee Program		
Advanced Typing	7/6	6/17
Beginning Typing	7/6	6/17
Medical Terminology	7/6	6/17
Career Planning	6/15	6/5
Telephone Techniques	(To be announced)	

To learn more about these and other courses in office and communication skills, contact the Training Assistance Branch, DPM, 496-2146.

'Lights Out' Campaign Wants Employees To Switch

"Don't forget—turn off the lights."

"Turn Off the Lights" campaign at NIH is asking all employees to help save energy and keep costs down by switching out the lights.

The Office of Engineering Services wants people to help by turning off lights in offices or in laboratories when leaving. Some employees are forgetting and leaving lights on when they leave for home. Others in the laboratories are leaving lights on and locking the door behind them.

In addition, when conference and general meeting rooms are not in use, lights should remain off. □

Behavioral Changes, Aging To Be Discussed June 3

Aging and the Behavioral Sciences is the subject of a National Institute on Aging state of the art seminar to be held Wednesday, June 3, from 1 to 3 p.m.

NIA intramural investigators will discuss current studies to learn more about behavioral changes, future research directions, and potential interventions to improve mental performance in the later years of life.

The meeting will be held at the NIA Gerontology Research Center, Conf. Rm. 1–117, located at Baltimore City Hospitals, 4940 Eastern Ave., Baltimore, Md. 21224. Call Dan Rogers, seminar coordinator, (301) 396-9421 for additional information. □

Risk Analysis Subject Of June Meeting

Dr. David P. Rall, NIEHS Director, will chair the health impact of toxic wastes session of the Workshop on Analysis of Real vs. Perceived Risks, June 1 to 3, at the National Academy of Sciences headquarters in Washington, D.C.

The workshop will attempt to identify the differences between real and perceived risks through the use of selected cases.

Workshop sessions will center on the health impact of toxic wastes; the risk of smoking cigarettes; failure to use seat belts in automobiles; the risks of airline passengers; risks in cancer chemotherapy; the risk of microbial food poisoning; the risk of nuclear power plant failure; and the depletion of stratospheric ozone.

The toxic waste session will consider the population at risk; estimation of risk; tolerance of risk; perception of risk; and management of risk.

For information call (919) 541-3345. □

Media Meeting To Be Held On Nuclear Power Information

An open symposium on the dissemination of public information on radiation and nuclear power will be held on Saturday, May 30, at Masur Auditorium starting at 9 a.m.

Jointly sponsored by NIH's Radiation Safety Branch and the Baltimore-Washington Chapter of the Health Physics Society, the all-day session will consist of the morning discussion on What Does the Public Need to Know?, and the afternoon presentations and questions and answers on How Do You Tell Them?

Participating in the discussions will be many experts in various areas of public information and public media.

Opening remarks will be made by Dr. Robertson Augustine of the Radiation Safety Branch, Robert E. Alexander, president of the BW Chapter, and Dr. Allen Brodsky, past president of the society. □

R&W Events in June Include Produce Sale, Picnic, and Meeting

R&W is sponsoring the following events in June:

A "Farmers Market" at NIH (to the right of parking lot 41A) to be held each Tuesday beginning June 2. Fresh fruits and vegetables, in season, will be available from local Montgomery County farmers in addition to home-made jams, jellies, honey, breads, and cakes.

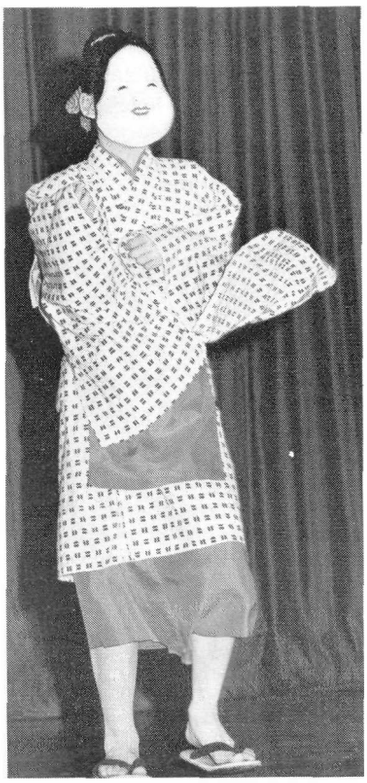
An annual employee picnic will be held on Sunday, June 7, at Pinecliff (35 miles from NIH) located in Frederick, Md. Jim Swanhart and the Mountain City Union musicians will play bluegrass music, and many other events are being planned.

The cost for the picnic is 25 cents for R&W members and 25 cents for each member of the immediate family. Guest fee is $2 each. Tickets and directions are available at the R&W Activities Desk, Bldg. 31, Rm. 1A-18.

R&W will hold its 33rd annual meeting on Wednesday, June 10, in Masur Auditorium.

Future plans will be discussed and door prizes and entertainment will be provided. All members are invited to attend. □

Cultural Events Mark Asian Pacific Heritage Week



Japanese classical dancer Tami Yoshikami (l and r) performed Otemoya, a folk dance from the island of Kyushu, and Harusame (Spring Rain), in the Masur Auditorium during a recent evening performance that concluded Asian Pacific American Heritage Week. The Maile Dancers (bottom) interpreted Pacific island songs and dance from Maori for the well-attended event. Singkil, a traditional Muslim dance from the Philippines, was acted out by the Mabuhiay and Sampaguita Dance Troupe (top). These were just some of the activities that had been planned for the observance. This summer, the NIH Minority Cultural Committee will be sponsoring a guest speaker program to encourage summer employees and interns to pursue careers in biomedical research. Future plans call for cultural activities for Hispanic week in September, and later an observance for Native Americans. Any employee interested in assisting or commenting on any cultural programs should direct their comments to the chairperson, NIH Minority Cultural Committee, Bldg. 31, Rm. 2B-40.—Photos by J. Crawford.

Cytochemical Methods Topic Of Neuroanatomy Conference

A conference on Cytochemical Methods in Neuroanatomy will take place at the Fogarty International Center on June 10–12 in the Stone House. Its purpose is to evaluate the recently introduced methods for analyzing the structure and organization of the nervous system.

The focus of the conference will be on the principles of the methods, their validity, the degree of success to be expected, the range of applications, and the results that can be obtained.

One entire session will be devoted to the development of techniques for marking single cells that have been studied physiologically, and exploring their entire form, arborization patterns, and connections.

Sponsored by the National Institute of Mental Health and FIC, the conference is being organized by Drs. Sanford L. Paley and Victoria Chan-Paley. Papers from the session will be published in book form. □

Education is the instruction of the intellect in the laws of Nature, under which name I include not merely things and their forces, but men and their ways.—*Thomas Huxley (1825–1895)* □

Dr. David P. Rall, Director, National Institute of Environmental Health Sciences, records occupancy as of April of the new NIEHS headquarters building at Research Triangle Park, N.C. To date, the conference room (capable of accommodating 240 people for meetings and seminars), the computer room, office areas, and the cafeteria are being occupied. Three large laboratory modules are in final stages of completion.—Photo by Fred M. Park, *The Leader*.

Investment Advisor To Speak at NIH

Investment advisor Jimmy Napier will conduct a seminar at the Masur Auditorium on June 9 on the subject of buying and selling houses and mortgages for profit. The author of a national newsletter on investments, Mr. Napier is a well-known lecturer on the subject. The free public investment session will start at 7:30 p.m. □

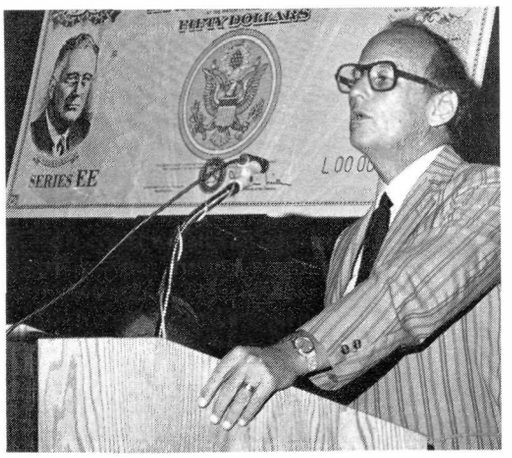
Are You Shy?

Morris Schapiro, mental health counselor of the Employee Assistance Program, OMS, will present a three-part program on Shyness. Definitions and ways of coping with shyness will be explored. The sessions will be held on 3 consecutive Tuesdays, June 2, 9, and 16, from noon to 1 p.m. in Bldg. 31, Rm. B2C-02A. □

U.S. Savings Bond Drive Runs to June 12; Subscribers Eligible for Raffle Prizes

On May 12, Dr. Donald S. Fredrickson, NIH Director, kicked off NIH's annual Savings Bond Drive by addressing approximately 200 NIH U.S. Savings Bond coordinators and canvassers in the Masur Auditorium. The drive runs from May 18 through June 12.

Attending the opening meeting were Dr. Carl D. Douglass, DRG Director, this year's campaign chairman; Jack Gerrard of the U.S. Savings Bond Division, Department of Treasury; Mary Durrett from the NIH Division of Financial Management's Disbursing (payroll) office; and John Robertson, DRG, campaign coordinator.



Dr. Fredrickson addressed the U.S. Savings Bond coordinators and canvassers to officially start the annual drive at NIH.

The new increased percentage rate affecting series EE bonds purchased on or after May 1, 1981, was the discussion focus. As reported in the May 12 issue of the *NIH Record,* the adjusted percentage rate for series EE bonds is now 9 percent when held to maturity for 8 years. All outstanding bonds issued prior to the May 1 effective date will also receive a comparable 1 percent increase in interest rate earnings.

Other bond features discussed were:

- Series EE bonds purchased as of May 1, earn 6 percent interest after the first year, and 8½ percent interest after 5 years.
- Bonds earn interest from their date of issue. They are dated at the time of issuance, and are sold at 50 percent of face value.
- Interest earned on savings bonds is state and local income tax exempt. Federal income taxes are deferred until the bonds are cashed or when they reach *final* maturity (usually 40 years).
- Only series EE bonds are available through the Payroll Savings Plan. Series E bonds, which have been replaced by Series EE, can no longer be purchased; Series HH bonds are available at most local banking institutions and are purchased by exchanging small denomination Series E or EE bonds which have a combined cash value of $500 or more. Series HH bonds are available in $500 multiple denominations (i.e., $1,000, $1,500, etc.) and pay 8½ percent interest per annum.
- Bonds currently held which have an issue date from May 1, *1941,* or soon thereafter, have or will soon be reaching FINAL maturity (which is 40 years from issue date on the bonds) and will no longer continue to earn interest. Therefore, as the bonds become 40 years old, it is wise to either cash them or exchange them for Series HH bonds.

The R&W Association has agreed to support this year's bond campaign by offering four gifts to be raffled at the end of the campaign. Employees will be eligible for one of the gifts if they start a new bond allotment or increase a present one. Prizes are a $50 U.S. Savings Bond; a Sony AM/FM portable radio; and a Sanyo pocket calculator. In addition, a fourth gift will be given to the NIH canvasser who has the most successful record at the end of the campaign.

U.S. Savings Bonds are a convenient, safe, systematic, and painless way to save a little each pay period toward your future savings goals. Canvassers will be in contact with NIH employees during the campaign to distribute information on savings bonds and answer any questions.

For more information call John Robertson, 496-7577.

MAKE HIM YOUR PAL TOO!
BUY U.S. SAVINGS BONDS

The Clinical Center recently sponsored an open house at the Pheresis Unit, located in a trailer behind Bldg. 10. Plasmapheresis, a 2-hour process, separates blood into its various components through the use of automated cell separators. CC patients benefit from donations of normal plasma which are used in their various therapeutic protocols. Dr. Harvey Klein, (l), chief of the Pheresis Unit, explains the blood exchange procedure to an interested NIH employee. The cell separator can extract specific blood components and then return the blood, minus the donated component, to the donor in one continuous uninterrupted procedure. The technique is promising for the study and treatment of a variety of disorders such as sickle cell anemia and other hereditary blood diseases requiring transfusions throughout the patient's life. Mike Nelms (r), #21 for the Washington Redskins, gives plasma at the open house.

New Facts Issued on Diabetes, Pancreatitis, and Dialysis

Three new fact sheets have recently been published by the National Institute of Arthritis, Diabetes, and Digestive and Kidney Diseases.

Diabetes: An Overview summarizes recent research advances and legislation that have led to more effective treatment and control of this major national health problem. Diabetes affects as many as 10 million Americans and its incidence is increasing in all age and socioeconomic groups.

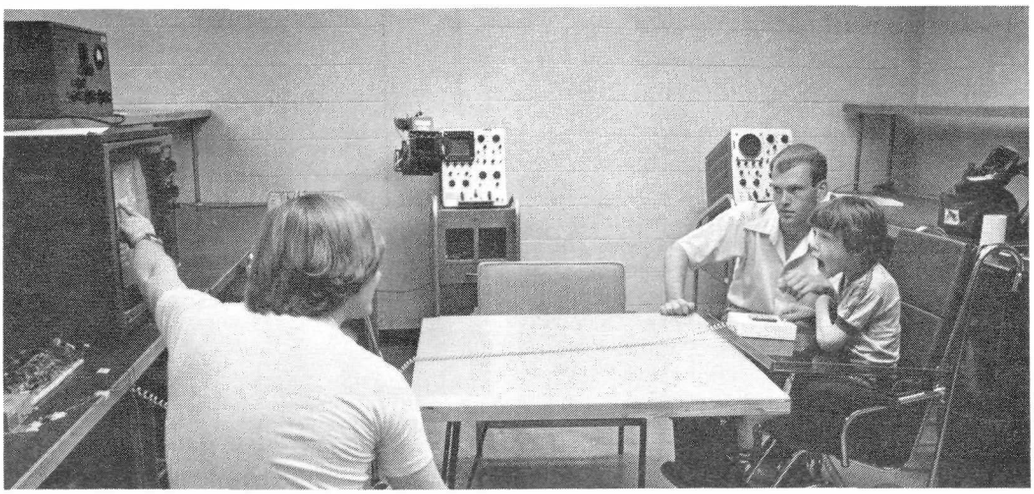
What is Pancreatitis? discusses the causes, symptoms, and treatment of both acute and chronic pancreatitis. About 50,000 to 80,000 cases of acute pancreatitis are diagnosed in the U.S. each year. Alcoholism is the most frequent cause of chronic pancreatitis, which affects about 20,000 to 50,000 people in the U.S.

Continuous Ambulatory Peritoneal Dialysis describes an innovative, portable, and potentially less expensive form of peritoneal dialysis for patients with kidney failure. NIADDK has supported pioneering efforts in development of this therapy, and continues support of investigations at a growing number of dialysis centers across the U.S.

Copies of the fact sheets are available from the NIADDK Information Office, Bldg. 31, Rm. 9A-04, 9000 Rockville Pike, Bethesda, Md. 20205; phone (301) 496-3583. □

One of the signs of a truly educated people, and a broadly educated people, and a broadly educated nation, is a lack of prejudice.—*Charles H. Mayo (1865–1939)* □

Tailor-Made Verbalizer Machine Helps Handicapped To Communicate Independently



Dave Price (l), graduate engineering student, points to information displayed on a video screen which is connected to the verbalizer. Jeff, a nonverbal cerebral palsy patient, operates the communications device, assisted by Mr. Cherasia. The equipment was developed by students in the University of Idaho electrical engineering and special education departments.

For many years, Jeff Johnson, 14, was thought to be severely mentally retarded. Born with cerebral palsy, a paralysis resulting from a lesion of the brain, Jeff isn't able to talk.

It is now clear, however, that he is of normal intelligence and may soon be able to "speak" with the use of a verbalizer, an electronic machine which helps severely handicapped and nonspeaking persons of normal intelligence to communicate.

Over the past 5 years, the machine has been developed at the University of Idaho, with funding from the Biomedical Research Support program of the Division of Research Resources, and combined with grants from local sources.

Evolving from a primitive screen of printed words lighted by a matrix of lightbulbs, to its present computerized scanner system, the new microprocessor version is called Teach I.

Words appear on a color television monitor when buttons or switches are activated; the words can then be formed into sentences which appear on the screen.

While several handicapped persons have worked with the verbalizer in its various stages, the latest model was designed especially for Jeff. He will learn to construct sentences through the verbalizer which now holds 1,300 words related to several subject matters. However, there is an unlimited word capacity.

Jeff lives in Havre, Mont., and visits the UI campus to practice using the verbalizer. His first use of the machine was an awesome occasion, according to one of his teachers, Mike Cherasia.

"It was the first chance Jeff had had to communicate meaningfully. I don't think he'd ever had that much control of his life. He was so excited he almost jumped out of the chair," said Mr. Cherasia.

"Now, with use of the verbalizer, instead of just being able to tell us he's sad, he'll be able to tell us why," he continued.

Previously, Jeff had communicated by pointing to words on a board attached to his wheelchair and answered questions or sent messages. "A six-word message took close to a minute to point out," Mr. Cherasia said. "There aren't a lot of teachers who can wait for him to point out a paragraph. The verbalizer will make him more independent and will also provide more vocabulary."

Although teaching Jeff to read and write is slow-going even with a verbalizer, Jeff has a fourth to sixth grade reading level after only 3 years of schooling, Mr. Cherasia said.

In using the verbalizer, Jeff's teacher instructs him to find the word "drink" on the screen. Jeff presses the button to start the scanner, and stops it when the pointer comes to "drink." The word appears at the bottom of the screen and Jeff uses the scanner to select other words to add to it, to make the sentence say, "I want a drink of water."

One advantage of this verbalizer is that it is tailor-made for its user and can be adapted to the user's abilities. A handicapped person using a similar commercial device must adapt to the device.

For instance, the department made a special verbalizer switch just for Jeff. He will be able to work the verbalizer by uttering into a microphone strapped to his neck rather than by pressing a button. His utterance will perform the same function as pressing a button.

As a pointer scans a list of words on the verbalizer screen, Jeff can stop the pointer on any word he chooses by making a gutteral sound into the microphone.

He will also have the option of using the manual switch, but vocalization should be more reliable since Jeff has trouble using his hands.

The department is also testing a special switch designed to help Jeff operate his wheelchair. "The boy has a tremoring in his shoulder and can't operate a normal switch, so we've taken a grip from a motorcyle and run a cable from that to the chair in hopes that a simple movement from one of his fingers will operate the chair," Mr. Cherasia said.

"There are probably scores of nonverbal, handicapped persons who could communicate with devices tailored to their individual abilities," Mr. Cherasia pointed out.

"Victims of muscular dystrophy, multiple sclerosis, cerebral palsy, speech defects and accidents are often thought to be retarded when their intellects are intact and normal. "Many of these people could communicate if we could find ways to help them." □

New NLM Sculpture Floats in Air

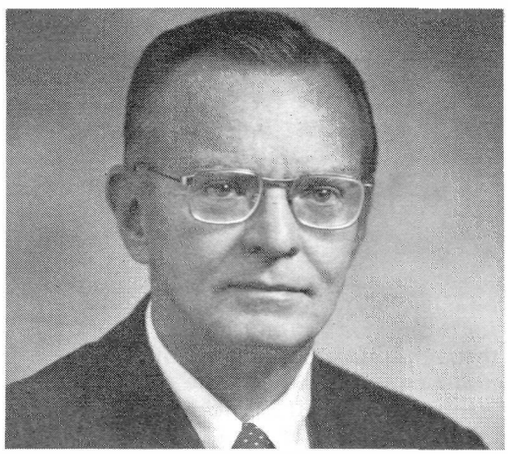
A large stainless steel tubular sculpture, 20 feet high and 32 feet wide, entitled "Tree I," will be installed at the National Library of Medicine early next month.

Artist Kenneth Snelson has worked, over a 2-year period, on the construction of the stainless steel tubes and steel cables. Like other examples of this well-known artist's work, the Library sculpture will appear to float unsupported, in defiance of gravity. The art sculpture creation is really symmetrical on three axes, giving this impression of unsupported suspension.

The sculpture will be installed on June 8 and 9, with a brief dedication ceremony scheduled at 2 p.m. on June 10. It will be set on the terrace between NLM and the new Lister Hill Center Building. Pedestrians and motorists traveling on Rockville Pike will be able to see this eye-catching display of imaginative work.

Mr. Snelson was commissioned to do the sculpture through the U.S General Services Administration's Art-in-Architecture program. Under this program, begun in 1963, one-half of 1 percent of the estimated cost of construction of a Federal building can be used for artworks.

The Hirshhorn Museum in Washington, D.C. will exhibit a one-man retrospective of Mr. Snelson's work from June 4 to Aug. 9. □



Dr. Richard M. Krause, Director of the National Institute of Allergy and Infectious Diseases, was recently presented the C. William O'Neill Distinguished American Award at the annual dinner of the Marietta Chamber of Commerce, Marietta, O. He was honored for his outstanding career as an "internationally known scientist and articulate spokesman for immunology and infectious diseases." Born in Marietta, Dr. Krause attended Marietta College, earning his bachelor's degree in 1947.

Karate and Judo Classes Throw Open Membership

Beginners interested in learning the subtleties of Tae Kwon Do (karate) or Kodokan judo can sign up for classes this month.

On Mondays for 12 weeks, a beginner's karate course will be taught by Dr. W. French Anderson, a first degree black belt. It will start on June 15.

The course will stress front and back stances, rising and side blocks, hand techniques, front and side kicks, combinations, and the introductory technique of Tae Kwon Do kata or chon-ji.

One-step sparring will also be taught along with various self-defense moves. Course participation can lead to a gold belt rating.

For students with previous training, intermediate and advanced classes will also be held on Mondays: intermediates from 7 to 8 p.m., and advanced from 8 to 9 p.m. Instruction in these classes includes more advance stances, blocks, punches, and kicks, sparring drills, advanced kata, board breaking (optional), and controlled free sparring.

The beginner's course in karate will cost $25, and the charge for advance students is $15 a month.

On Tuesdays, a 12-week beginner's judo course will begin on June 23, from 6 to 7:30 p.m.

Instruction will be given by NIH Deputy Director Dr. Thomas E. Malone, a second degree Nidan black belt, and Diane Moore, a first degree Shodan black belt.

The course will emphasize judo principles and techniques which will lead to mental and physical development that can carry over to daily living.

Judo exercises, methods of breaking falls, and selected throwing and grappling forms will be included.

Members who complete this course will be eligible to continue and be considered for promotion to other ranks, either through tournament competition or as a noncompetitor. The course cost is $35.

Information and applications for both courses can be obtained from the R&W Association Activities Desk in Bldg. 31, Rm. 1A-18, or by calling 496-4600.

Karate applications may also be obtained from Dr. Anderson, 496-5844. Judo forms are available from Dr. Malone, or Sue Stewart, 496-5586. □

Dr. E. Handler Appointed To NIGMS Advisory Council

Dr. Evelyn E. Handler, president of the University of New Hampshire, has recently been appointed to the National Advisory General Medical Sciences Council for a 4-year term.

She served as dean of science and mathematics at Hunter College from 1977 through 1980. Born in Budapest, Hungary, Dr. Handler received her A.B. degree from Hunter College and her M.S. and Ph.D. degrees from New York University.

Her research interests have been in blood cell production and release in normal and leukemic states. □

Good 'Times' Recorded at Boston Marathon By Four Health's Angels in April

Four NIH Health's Angels—Ron Crystal, Jerome Kerkhof, George Martin, and Audry (Jack) Shawver—joined a pilgrimage of over 7,000 runners to compete this year in the country's oldest and best known foot race—the Boston marathon.

Each year, runners compete for the privilege of participating in the 26-mile 385-yard race. Entrants must meet a qualifying time in a marathon during the previous year. The level of competition this requirement ensures, and the tradition surrounding the race, makes participation in the event a cherished goal for thousands of runners.

Mr. Shawver and Dr. Kerkhof came back with the best NIH times: 2:59:23 and 3:03:00. What's more, both Mr. Shawver and Dr. Kerkhof are master's runners—over 40, and both got "pr's"—personal records—in this race.

This was Dr. Kerkhof's third Boston marathon. At 54 years of age, he has been running for 4 years, in marathons for 3.

"I started jogging to get in shape," he said, "a friend asked me to enter the Cherry Blossom race and I did so well I was hooked." The Cherry Blossom is a 10-mile race held annually here in Washington, and an event many NIH'ers run in.

The second year he was running, he competed in his first marathon which qualified him for Boston. Last year he ran 3,240 miles.

Mr. Shawver, 44, who has been running 8 years, says he felt great during this race. "I picked it up after 21 miles. I knew I had a chance to get under 3, and I went for it. I felt the strongest after 20 that I ever have."

Before the marathon, Mr. Shawver increased his usual average of running 65 miles per week to about 90. "I've run 20 miles every Sunday since last February."

"I usually hit the wall about 24." The 'wall' refers to a point in a marathon where runners feel they have exhausted virtually all physical energy. "The crowds pull you along though," Mr. Shawver said, "they tend not to let you stop running."

Dr. Crystal was one of 600 physicians that competed in the race. He and many others

Boston marathoners' Drs. Kerkhof, Crystal, and Mr. Shawver (l to r) ran in this year's race. Absent is Dr. Martin.

participated as members of the American Medical Joggers Association which provides medical assistance for the marathon.

A lecturer on sports medicine, Dr. Crystal, 40, started running 5 years ago and liked its benefits, "among them losing 20 lbs."

Although he says that running in itself may not reduce the risk of heart disease, it does reduce risk factors such as—excess weight and smoking.

He has also observed that runners feel better psychologically about themselves and about life. His marathon time was: 3:20.

Running, agrees Dr. Martin, 48, and "is good psychologically. It takes away tension." He started running while in Israel in 1966 and has run in five Boston marathons. When he qualifies with Washington's Marine Corps marathon each year, Dr. Martin said, "it feels like you're getting something for nothing." A master's runner, he qualified this year at 3:08, running Boston in 3:40.

"I enjoy running," says Mr. Shawver. "I wouldn't be out there otherwise. I can't beat the world-class runners, but I keep up my health and well-being. I'm running against my own previous time." □

Hilda Wexler, NCI, Receives DC Cancer Society Medal

Hilda Wexler, a National Cancer Institute biologist, received the American Cancer Society District of Columbia Division's highest medal and citation recently for her extensive contributions to cancer control.

Annual Award

The St. George Medal and citation is a national award presented annually to a volunteer in each division of the society who has made a significant contribution to the fight against cancer.

Ms. Wexler has been an active volunteer with the American Cancer Society for almost 30 years. She is currently division vice president, member of the board's executive committee, program evaluation committee, public education committee, and lay delegate to the national board of directors. □

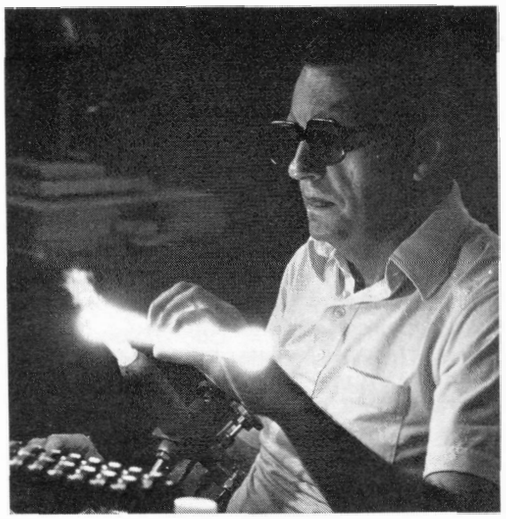
Ms. Wexler was presented her medal and citation at the division's annual meeting.

Galaxy of Glass Instruments Fill Researchers' Needs

The commitment of the scientific glassblowers who work at the Biomedical Engineering Instrumentation Branch, DRS, is extremely intense. Generally, their efforts are rewarded with uniquely constructed pieces of sturdy scientific laboratory glassware ready to serve research. Hundreds of requests come in annually from NIH researchers and physicians for custom-made scientific laboratory equipment.

Over the years, glass has been spun, tapered, and blown into specially designed filter funnels and columns and jacketed beakers on the lathes in Bldg. 13. "Our job is to make prototype scientific glass instruments that are not commercially available to researchers," said William R. Dehn, unit chief, who along with Carrol Toms and Joseph Fox, fill requests from all types of researchers, including Nobel laureates.

Depending upon workload and priority, a glassblower can have a glass object ready the same day, or as in most cases, a request can be met within 1 week to 10 days.

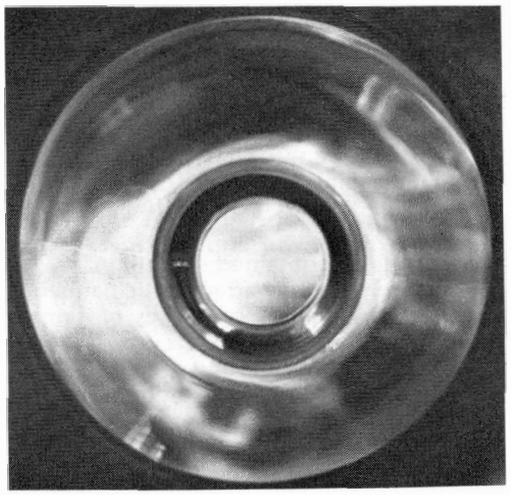


Light from the special thermal properties of optical quartz is reflected in the face of Mr. Dehn.

First Priority Is Patients

"Number one priority is always given to patient care requests for the Clinical Center," said Mr. Dehn noting that his unit in the past has made glass tracheal devices fitted individually to patients who have had surgery.

Unlike skilled artisans at Murano, Italy, and Williamsburg, Va., or the instant pop art of shopping mall glass novelty makers,



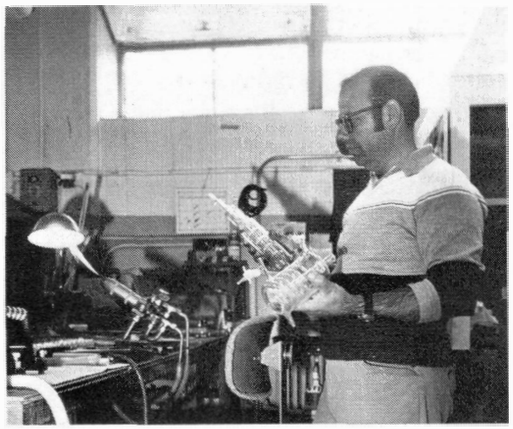
A fiery hand of flame is applied to the end of a whirling Pyrex bottle on a glassblower's lathe in Bldg. 13.

NIH's glassblowers have to undergo a long, specialized apprenticeship where they must become competent with both glass and science.

An example of this training is Mr. Dehn's own career. Prior to coming to NIH 19 years ago, he worked for the Corning Glass Company for 6½ years making a variety of laboratory glass instruments.

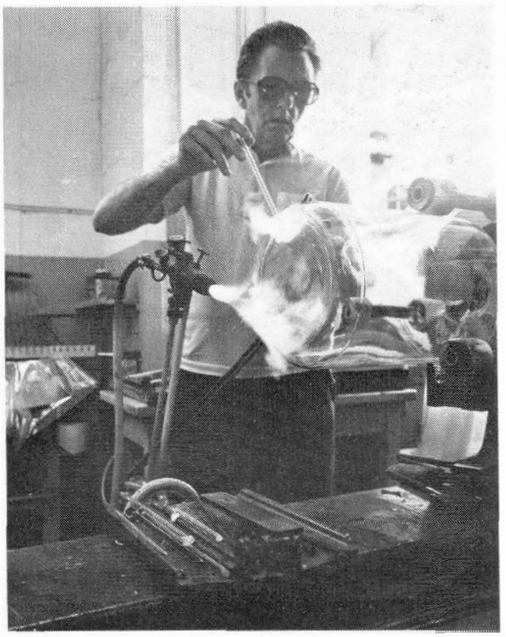
"You've got to have good hand-eye coordination if you want to be a glassblower" noted Mr. Dehn wryly, adding that it takes anywhere from 5 to 10 years to adequately train someone for a job at NIH.

Besides knowing the physical properties of the different types of glass, a scientific glassblower should have some college-level engineering and chemistry behind him. On many occasions, scientists will bring research papers to the unit and ask that a piece of equipment be duplicated. After reading the paper and speaking with the researcher, glassblowers have contributed worthwhile design modifications to the original concept when applicable.



Mr. Toms holds two of the intricately constructed glass instruments he had made at his workbench over the years.

There are three things that a glassblower must always keep in mind when making an instrument: temperature, which can go as high as 4,000° Fahrenheit; the amount of fiery stress exerted on a piece of glass as it is formed, particularly when the object has several internal seals; and finally, the degree of tolerance or the exact dimensions that a project demands.



Two jets of flame allow Mr. Dehn to seal an outlet on a modified Pyrex bottle.

"Glass is temperamental. Most glassblowers are anxious about their work," Mr. Dehn said, adding that the sound they hate to hear is that subtle cracking sound that may begin softly, almost imperceptibly, and results in hours of work and concentration being done for naught.

One of the ways glassblowers find to enjoy themselves is to make decorative glass figures at home in their spare time. Mr. Toms, who is a self-taught artist, works at home on figures for his friends.

Next to his bench is a photo gallery of all the complicated scientific pieces he has created over the years. "You never stop learning from one job to the next," said Mr. Toms, who was trained in his speciality at NIH.

All the NIH glassblowers do not mind occasionally giving up their lunchtime to allow small groups of children from the Clinical Center to come over to watch them work. These special requests are handled on an individual basis.

It is not uncommon even for a child or two to leave with a specially made glass swan or another figure to take home. □

Hayfever Sufferers Needed as Volunteers

Spring and particularly fall hayfever sufferers are being sought as volunteers to participate in an allergy testing program administered by the Allergenic Products Branch of the Bureau of Biologics.

Persons who have experienced spring and/or fall hayfever symptoms over the last several years are needed to evaluate the ongoing allergy testing program. Only HHS employees are eligible to participate.

Volunteers will be evaluated through skin and blood tests. They will also be monitored during the local pollen season to determine the relationship of symptom intensity to the local pollen count.

A group of patients may be selected to participate in an allergy injections program designed to determine the safety and effectiveness of the Bureau's standardized extracts.

Interested persons who wish to volunteer can receive an allergy questionnaire by sending their name and address to: Dr. Paul C. Turkeltaub, Bldg. 29, Rm. 214. □

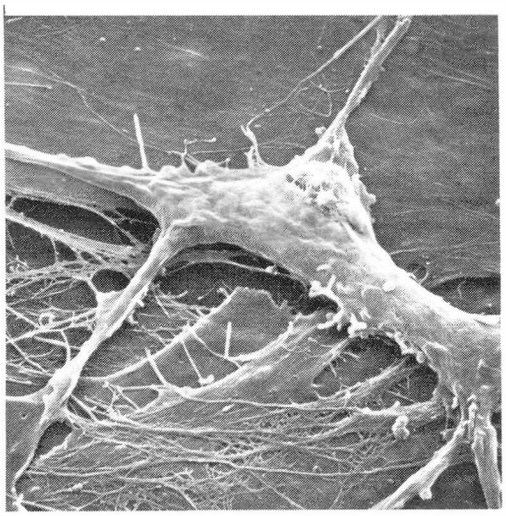
Adult Skin Cell Samples Yield Information on Normal Aging Patterns

By Mary Anne Kurz

Comparative studies of skin cells taken from young and old volunteers and grown in laboratory cultures are yielding important information about human aging.

While cells from young donors grow rapidly, those from older people replace themselves less frequently and more slowly, form colonies that are not as dense, repair genetic damage less readily, and have significantly shorter life spans.

Although there are some variations, the degree of these changes seems to parallel the age of the donor, suggesting that cells *in vitro* follow an aging pattern similar to that observed *in vivo*.



A scanning electron micrograph shows a human fibroblast cell magnified 15,000 times.

In addition to pinpointing specific aspects of cellular aging, the studies suggest that such cell measurements in the laboratory might be used to help predict the development of age-related disorders such as alterations in immune function and glucose tolerance.

The initial investigations were conducted by Dr. Edward L. Schneider, associate director for biomedical research and clinical medicine at the National Institute on Aging.

At the time, he was chief of the Section on Cellular Aging and Genetics at NIA's Gerontology Research Center in Baltimore, Md.

Dr. Schneider obtained small skin samples from healthy adult participants in the Baltimore Longitudinal Study of Aging. These people go to the GRC every 1 to 2 years to take part in a broad spectrum of investigations into normal aging patterns.

It is hoped that repeated skin biopsies may be obtained from individuals over a period of many years. Some of these cells are frozen, to be retrieved later for comparison with newly obtained specimens from the same people.

He studied the cumulative replication capacity of skin fibroblast cultures derived from old (65-plus) and young (25–30 years) men. The old men's cell populations began to exhibit senescence, or slow in growth, after an average of 22.5 population doublings. But cells from the young men did not show signs until after 35.2 doublings.

Measured Doubling Time

Early in the replication process, Dr. Schneider measured the length of time it took for the cell populations to double, and the number of cells grown per colony.

While it took young cells 20.8 hours to double their number, the older ones required 24.3 hours. Furthermore, fewer old than young cells divided. While 87.7 percent of the young cells replicated, 79.6 percent of the old cells did so.

Other measurements were made of the cell number at confluency (the point at which growing cells occupy all available space). At confluency, there were 7.31 cells per cm in the young colonies, and 5.06 cells per cm in the old ones.

To determine the extent to which young and old cells repair genetic damage, Dr. Schneider studied their sister chromatid exchanges. These chromosomal changes are thought to be evidence of a cell's attempts to cope with DNA damage.

He found a significantly lower frequency of mutagen-induced SCE in cultures derived from older people than in those obtained from younger subjects.

There was an average of 67.9 SCE's per cell in the young cultures, but only 56.1 SCE's per cell in the old ones. This finding suggests that, as aging progresses, human cells may become less efficient in repairing damage to their genetic material.

Some Functions Not Altered

Several cellular functions, however, were found not to be altered during the course of aging. Direct measurements of cellular RNA and protein content and virus production revealed no significant differences between young and old cells.

These studies are being continued by GRC biologist Robert Monticone. Cell culture data are being compiled and will soon be analyzed to determine possible associations between cell culture proliferation in the laboratory and other physiologic measurements in longitudinal study participants.

It is hoped that answers may be obtained to questions such as: Will the old person whose cells replicate well in tissue culture have relatively good immune function and wound healing? Will the young individual whose cells show diminished replication have impaired immune function?

Over the past 4 years, more than 400 fibroblast cultures have been established from skin specimens donated by members of the Baltimore Longitudinal Study. Many of these cultures are being incorporated into an Aging Cell Bank at the Institute for Medical Research in Camden, N.J., and are available to researchers interested in studying cellular aging.

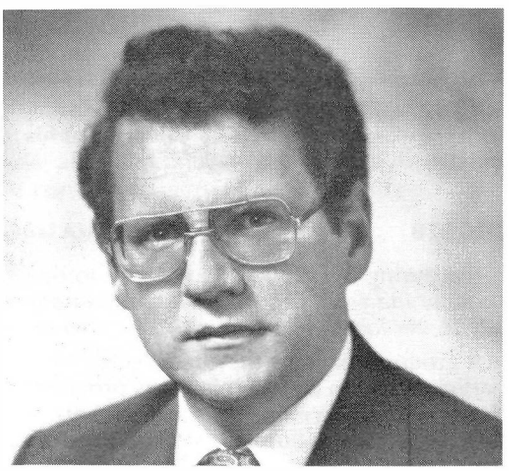
Further information on the cell bank is available from: Dr. Arthur E. Greene, Head, Cell Biology Department, Institute for Medical Research, Copewood and Davis Sts., Camden, N.J. 08103; (609) 966-7337. □

Dr. Stephen Katz Receives Two Dermatology Awards

Dr. Stephen Katz will be the 1981 recipient of two dermatology awards, the Marion B. Sulzberger Prize from the American Dermatologic Society for Allergy and Immunology, and the Montagna Lecture Award from the Society for Investigative Dermatology, Inc.

Dr. Katz is chief of the Dermatology Branch, National Cancer Institute. He is a leading authority on the relationship of the body's immune system to diseases of the skin, and has contributed greatly to the understanding of the role antibodies play in skin diseases such as pemphigus, dermatitis herpetiformis, and herpes gestationis.

These disorders are characterized by blisters and lesions, and are thought to result from immunologic imbalances within an individual. Dr. Katz's most recent work concerns studies of the function of the Langerhans cell, a highly specialized skin cell now known to play an important role in immunologic reactions.



Dr. Katz was doubly honored for his research efforts in dermatology for 1981. He received one award in April and will receive the second in September.

The Sulzberger Prize is presented each year to honor a scientist who has advanced fundamental understanding of skin allergies. The award was established in 1976 to honor Marion B. Sulzberger, a pioneer in skin immunology research.

The Montagna Lecture Award is annually presented to a scientist who has made an outstanding contribution to dermatologic research. It was established to honor Dr. William Montagna, author of numerous books on skin biology, and currently director of the Oregon Regional Primate Center in Beaverton. □

Look to your health: and if you have it, praise God and value it next to a good conscience; for health is the second blessing that we mortals are capable of; a blessing that money cannot buy.—*Izaak Walton (1593–1683)* □

DIABETES

(Continued from Page 1)

has remained unchanged. The rate of birth defects among infants of diabetic mothers is generally believed to be about 5 percent, or three times more common in infants of diabetic mothers than in infants of nondiabetic mothers.

Those birth defects most commonly associated with maternal diabetes occur during the first 7 weeks of gestation, often before the mother suspects she is pregnant or before her first prenatal visit to a physician.

Investigators from the Universities of Washington, Pittsburgh, Cornell, Harvard and Northwestern will conduct the study at their respective locations. Each participating center will recruit insulin-dependent diabetic women who are planning to become pregnant as well as nondiabetic women to serve as the comparison group.

Project participants will use basal body temperature monitoring to recognize conception quickly. Upon confirmation of pregnancy, the health status of the diabetic women will be assessed and they will learn to monitor their blood glucose levels at home. Nondiabetic women will be monitored briefly at a study center.

Careful monitoring of diabetes during the first 12 weeks of pregnancy will include daily at-home checks of blood glucose levels and urine testing as well as weekly visits to either a private physician or to the study center for blood tests. Nondiabetic women will check their urine daily and will undergo laboratory tests biweekly during the same period.

During the remainder of pregnancy, monthly visits to either private physicians or to the study center will be required. After the women give birth, the study team will examine each infant.

The project offers diabetic women an opportunity to maintain careful control of their diabetes during the first 12 weeks of gestation. This, investigators believe, may reduce the risk of birth defects in their offspring.

All tests and examinations conducted in connection with the study and all equipment needed for home monitoring will be provided free of charge. Basic prenatal care, however, will remain with the woman's private physician.

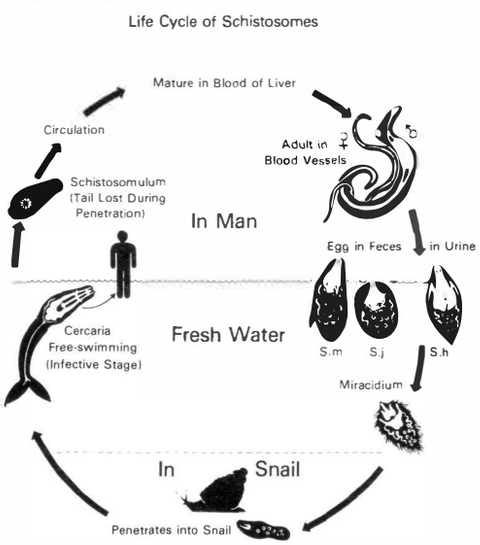
For more information about the study, call Dr. James Mills, (301) 496-5064, or call the study centers directly. □

VACCINE

(Continued from Page 1)

tion, and F. Alan Sher, chief, Cell Biology and Immunology Section, both of the Laboratory of Parasitic Diseases, presented research approaches to malaria vaccines and studies of immunity and immune evasion in schistosomiasis, respectively.

The scientists described advances being made in vaccine development due to recent burgeoning of recombinant DNA technolo-

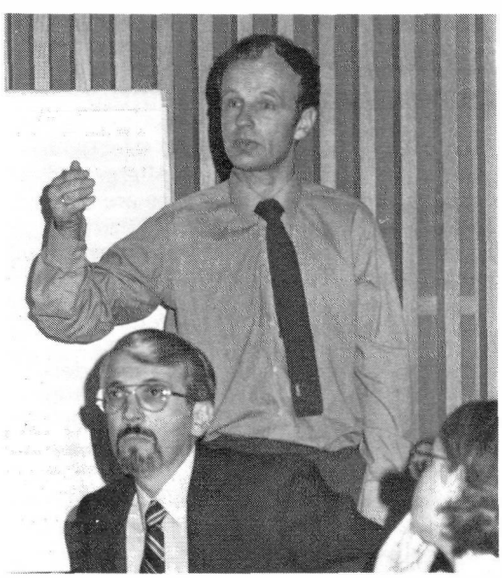


gy, research using monoclonal antibodies, and new culture techniques.

According to the scientists, vaccines will never eliminate malaria from Africa because this would require that 999 of 1,000 people be vaccinated, an obvious impossibility. But vaccination along with vector control could have great impact. There is almost unanimous agreement that vaccination would be the most satisfactory method of controlling human schistosomiasis.

This seminar was one in a series of Science Writers' Seminars sponsored by the NIH intramural scientists and the Division of Public Information to provide background to science and medical writers on the state of the art in various areas of research conducted at NIH. □

First Workshop Held on Epidermolysis Bullosa



Dr. Tobias Gedde-Dahl of the Norsk Hydro's Institute for Cancer Research, Oslo, Norway, answers a question about the genetics of EB. Seated is Dr. Laurence Miller, director of the NIADDK Skin Diseases Program, one of the workshop coordinators.

Over three dozen medical experts from around the world convened at NIH to attend the first workshop on Disease Mechanisms in Epidermolysis Bullosa.

Epidermolysis bullosa is an uncommon, inherited disease which causes blistering of skin and mucous membranes. Many EB patients experience scarring, deformities and malnutrition; some do not live beyond 30 years of age.

The workshop was held to review developments in basic and clinical research and to stimulate more study in EB. Presentations covered genetic aspects, related blistering diseases, complications and their treatment, diagnostic adjuncts, cell biology of the skin, pathogenic mechanisms, and considerations for future research, including antenatal diagnosis and refinements of current cell culture techniques.

The conference was supported by NIADDK through a grant to the Washington University School of Medicine and by the Dystrophic Epidermolysis Bullosa Research Association, a voluntary health group headquartered in Brooklyn, N.Y.

Workshop highlights will be published and available later this year from NIADDK. □

Annette Wong, (l), a chemist in the Laboratory of Reproductive and Developmental Toxicology, NIEHS, has been appointed coordinator of the Federal Women's Program within the office of Equal Employment Opportunity. Ms. Wong presented an engraved silver tray to Harriet Burgess of the Comparative Medicine Branch for accomplishments as last year's coordinator.

Toby P. Levin, FIC Conference Coordinator, Retires; Ran International Meetings

Last month, Toby P. Levin, conference coordinator at the Fogarty International Center, who has organized at least 150 conferences of international scientists during her 13-year NIH career, retired and was given a well-attended farewell party in her honor in the international room in Bldg. 16A.

Over the years, Mrs. Levin used a combination of tact and perservance to set up these international scientific meetings that brought many of the world's authorities to NIH.

"She had the exceptional ability to work with international scientists and assist members of the international scientific community," said Dr. John P. Burke, assistant chief, Conference and Seminar Branch, who worked with Mrs. Levin for several years. "I've loved every minute of it," she said, noting that her experience as the wife of a U.S. Foreign Service officer in such countries as Korea, Japan, and France aided her in her NIH work.

A native of Kansas, Mrs. Levin plans in retirement to enroll next fall at the University of Maryland where she hopes to pursue studies in philosophy and English literature. "I'm doing it for my own satisfaction," she said.

Over the years Mrs. Levin has distinguished herself in dealing with international scientists when they came for NIH conferences.

Soon, she and her husband, Harold, are planning an around-the-world trip to visit U.S. State Department friends. The Levins also want to visit with their daughter Erica, an opera singer living in Holland. Their son, Jordan, is an artist now residing in Boston. □

Carl Rowan To Speak At Graduate Convocation

Columnist, television commentator and author, Carl T. Rowan, will deliver the keynote address at the seventh annual honors convocation of the Career Education Center at noon on Monday, June 8, in the Masur Auditorium.

Known for his vigorous support of the disadvantaged, Mr. Rowan is a permanent panelist on "Agronsky and Company," and a frequent guest on "Meet the Press," where he comments on today's issues.

This year, in addition to recognizing the achievement of students in the several CEC centers, the convocation will also celebrate the 10th anniversary of the establishment of this unique college program.

Student Recognition

At this time CEC students completing the associate, baccalaureate, and master's programs will receive recognition from a representative of the Secretary of the Department of Health and Human Services. Honor roll students from all CEC centers, including 48 NIH employees, will also be presented certificates.

The NIH Career Education Center is administered by Richard O. Jackson, project officer, and center supervisor George Slate, Career Training Branch. This convocation, sponsored jointly by the CEC office and the Student Government Council, headed by LaVerne Williams, will include musical selections and refreshments.

For further information contact the CEC office, 496-5025. □

Two New NIAID Advisory Council Members Appointed

Two new members have been selected to serve on the National Advisory Allergy and Infectious Diseases Council. They are Dr. Harvey Blank, a dermatologist of Miami, Fla., and Ray Grandbois, M.P.H., a health administrator of Tucson, Ariz.

An eminent dermatologist, Dr. Blank presently serves as professor of dermatology and chairman of the department of dermatology at the University of Miami School of Medicine. A native of Chicago, he earned his B.S. and M.D. degrees in dermatology from the University of Chicago. His research interests include virus diseases of the skin, mycology, experimental cytology, as well as investigative and clinical dermatology.

Mr. Grandbois, a member of the Turtle Mountain Band of Chippewa Indians, was born on the Turtle Mountain Indian reservation in Belcourt, N.D. He earned his B.S. degree from the University of North Dakota in 1972 and the M.P.H. in health administration and planning from the University of California-Berkeley in 1975.

Mr. Grandbois presently serves as chief of the office of program analysis services and acting chief of the office of field administrative support services with the Tribal Management Support Center at Tucson.

As member of the Institute's advisory council, the new members will assist others on the council in evaluating the NIAID programs and make recommendations to the director concerning the priorities and goals of the Institute. □

Visiting Scientist Program Participants

Sponsored by Fogarty Internat'l Center

4/23—**Dr. Srinivasan Chandrasekhar**, India, Laboratory of Developmental Biology and Anomalies. Sponsor: Dr. George Martin, NIDR, Bg. 30, Rm. 416.

4/27—**Dr. Virender Mohan,** India, Laboratory of Chemistry. Sponsor: Dr. Louis A. Cohen, NIADDK, Bg. 4, Rm. 328.

4/27—**Dr. Marcos L. Satz,** Argentina, Immunology Branch. Sponsor: Dr. Dinah Singer, NCI, Bg. 10, Rm. 5B17.

4/27—**Dr. Bernard Kunz**, Canada, Laboratory of Molecular Genetics. Sponsor: Dr. Barry Glickman, NIEHS, Research Triangle Park, N.C.

4/29—**Dr. Zofia Olempska-Beer**, Poland, Laboratory of Molecular Biology. Sponsor: Dr. Ernst Freese, NINCDS, Bg. 36, Rm. 3D02.

4/30—**Dr. Esa Korpi**, Finland, Adult Psychiatry Branch. Sponsor: Dr. Richard Wyatt, NIMH, St. Elizabeths Hospital.

4/30—**Dr. Tatsufumi Nakamura**, Japan, Laboratory of Central Nervous System Studies. Sponsor: Dr. Clarence J. Gibbs, Jr., NINCDS, Bg. 36, Rm. 4A17.

5/1—**Dr. Paolo Arosio**, Italy, Laboratory of Technical Development. Sponsor: Dr. Yoichiro Ito, NHLBI, Bg. 10, Rm. 5D12.

Grants Associates Seminar Series Nominations Solicited

The Office of Grants Associates is accepting applications for its 1981–1982 Grants Associates Seminar Series scheduled to begin on Sept. 14. The weekly seminars will run for 10 months and are usually held on Monday mornings in Bldg. 31.

The seminar series is designed to address a broad spectrum of philosophical, political and policy issues relevant to the administration of Federal programs in the support of biomedical research.

Topics covered include: the roles and interactions of HHS, NIH, other PHS and non-PHS agencies; policy and ethical considerations in biomedical and behavioral research; factors affecting extramural programs and their administration; program planning and evaluation; and the legislative/budget process.

Individuals wishing to be considered for the series should forward a current curriculum vitae and a statement of interest through their immediate supervisor to their B/I/D director. Each B/I/D director is being asked to forward no more than three candidates to the Office of the Grants Associates no later than COB, Friday, June 19.

Because of logistical considerations, and to ensure that all participants have an opportunity to participate fully in the discussions of the seminar series, only a limited number of participants can be accommodated.

Final selections will be made by Dr. William Raub, NIH Associate Director for Extramural Research and Training. All nominees whose documents reach the OGA by June 19, will be notified of final action in late August.

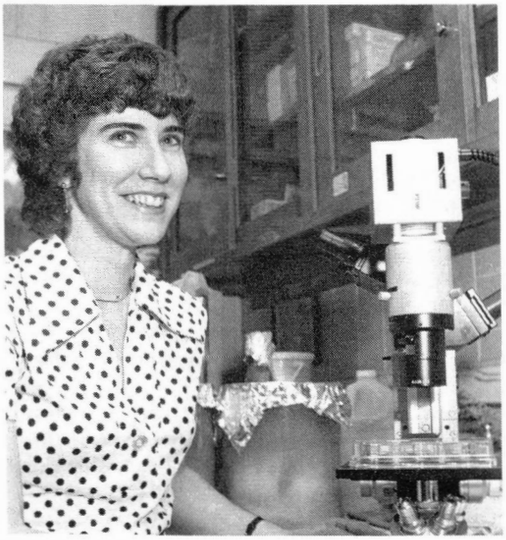
For further information, contact A. Robert Polcari, executive secretary, Office of Grants Associates, 496-1736. □

Dr. J. Massicot Wins Corning Graduate Student Award

Dr. Judith G. Massicot of the Laboratory of Infectious Diseases, National Institute of Allergy and Infectious Diseases, was named first-place winner in the Corning Award competition for best presentation of a scientific research paper by a graduate student.

Dr. Massicot and five other graduate students represented local universities at graduate student night during the annual meeting of the Washington, D.C., branch of the American Society for Microbiology, held recently at the Walter Reed Army Medical Center.

The Corning Award, sponsored by the Corning Glass Works of New York, was instituted in recent years to encourage research by a graduate student in microbiology.



Dr. Massicot recently received the Corning award for her exceptional graduate work in microbiology.

Representing George Washington University, Dr. Massicot was the unanimous choice of the judges for her presentation, A Temperature-Sensitive Mutant of Influenza A Virus and Its Recombinant Progeny as a Donor for Vaccine Strains. Dr. Massicot joined NIAID in 1976 as a chemist.

Continued Studies

While working full time in the NIAID lab, she continued her studies at GWU, dividing her time between classes and the laboratory, working early morning, late evening, and Saturdays to complete the full 40-hour work-week schedule.

Although she is not certain if she would like to repeat the 7 years of hard work and long hours, it was with a real sense of accomplishment that she accepted her Ph.D. degree in microbiology at graduation ceremonies on May 3.

Dr. Massicot plans to continue her work on influenza vaccines at the Laboratory of Infectious Diseases. She is also active in the Washington, D.C., Chapter of Graduate Women in Science, serving as the group's vice president. She is a member of the American Society for Microbiology and Sigma Xi, the Scientific Research Society. □

Toxins, Kidney Disease Discussed at Conference

The roles of commonly used drugs and substances in the environment, such as industrial metals, polychlorinated and polybrominated biphenyls, dioxins, and other organic compounds, and their relationship to kidney disease research were discussed in March at an international conference in Pinehurst, N.C.

The meeting, Renal Effects of Drugs and Environmental Toxicants, was jointly sponsored by the National Institute of Arthritis, Diabetes, and Digestive and Kidney Diseases and the National Institute of Environmental Health Sciences. Dr. George Porter of the University of Oregon was chairman.

Participants from the United States, Sweden, Belgium, and France were welcomed at the opening session by Dr. Nancy B. Cummings, associate director of the Kidney, Urologic, and Blood Diseases Program, NIADDK.

In their discussions, the scientists focused on the toxicity of common antibiotics, industrial solvents, and environmental toxins, such as lead, cadmium, mercury and gold, as causes of acute renal failure.

Dr. Cummings pointed to analgesic-associated nephropathy as one of the few potentially preventable disorders that has been identified with a degree of certainty. Papers presented showed a large number of drugs and chemicals in the environment as causing or being related to kidney problems.

Dr. Robert A. Goyer, deputy director, NIEHS, spoke about the mechanisms of cadmium-induced renal disease. Dr. Bruce A. Fowler of the Laboratory of Pharmacology, NIEHS, presented a paper on the intracellular mechanisms by which environmental agents exert their toxicity on only certain cell types in the kidney, and the impact of these "silent" effects.

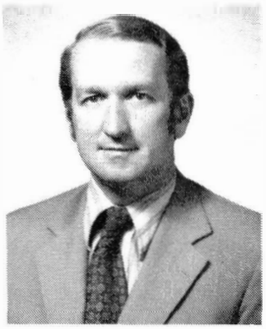
Dr. William Kluwe of NIEHS's Environmental Biology Branch and the National Toxicology Program, spoke on alteration of kidney detoxification enzymes by common halogenated organic compounds.

The principal coordinator of the program was Dr. M. J. Scherbenske, program director of NIADDK's Renal Physiology/Pathophysiology Program. □

Edward H. McManus Named NEI Deputy Director

Edward H. McManus, executive officer for the National Eye Institute since 1978, has been named NEI deputy director.

In his new position, Mr. McManus will recommend and develop policy positions on issues facing the Institute, including legislative affairs and relations with constituent organizations. He will provide guidance on management policies affecting program planning, knowledge transfer, and other functions of the NEI.



Mr. McManus

Mr. McManus also will be responsible for coordination of Institute activities and will serve as the liaison between NEI and other Federal and non-Federal agencies.

Developed Series Plans

While serving as executive officer, Mr. McManus played a major role in the development of the National Advisory Eye Council's series of national vision research plans.

While serving as executive officer, Mr. McManus played a major role in the development of the National Advisory Eye Council's series of national vision research plans.

He was also instrumental in establishing NEI's international research program and facilitating collaboration with the Fogarty International Center, the Office of International Health, and the Agency for International Development. He played a key role in orchestrating the United States' cooperative vision research effort with Japan and the NEI.

Mr. McManus, a native of Hyannis, Mass., previously worked for the National Library of Medicine and the Division of Research Resources. He majored in ecomics at the University of Massachusetts, from which he received his bachelor's degree in 1960. He received his master's degree in public policy and administration from the University of Wisconsin in 1970. □

Paul W. Barrows (l), equal opportunity officer and special assistant to the dean of the graduate school at the University of Minnesota, visited NIH recently. He said the information, tours, and contacts he made here are invaluable to his role as administrator and fund-raiser of scholarships, recruitment, and academic counseling for minority graduate students. He met with Levon Parker (r), EEO coordinator, NINCDS, who led Mr. Barrows on a 2-day tour, and with NIH Deputy Director Dr. Thomas Malone, DEO acting director Theodore Blakeney (c) and many others.

TICKETS

(Continued from Page 1)

The letters inform recipients that the fine has doubled and they are to appear in court. Usually the sessions are held in the Landow Bldg. on Wednesday with U.S. Magistrate Daniel E. Klein, Jr., presiding.

Similar to the old procedure, the new system allows the court to prevent Maryland state drivers from renewing their automobile registration if they have not paid their motor vehicle violation tickets.

A failure to appear after being notified of a court date will lead to a Federal arrest warrant being issued. On May 6, Magistrate Klein signed 55 arrest warrants and flagged 52 registrations for Maryland drivers.

Federal arrest warrants can be served by the NIH Special Police or by deputy U.S. Marshals, either at an employee's office or at his or her home.

If the NIH Special Police arrest someone, they will be taken either to the Landow Bldg., if the court is in session, or to the Federal court in Baltimore.

Only certified checks or money orders will be accepted in Federal court, and the U.S. Marshal's Office does not accept cash. NIH Special Police will not accept any money.

Some of the changes in the collateral and mandatory appearance offenses are:

	Old	*New*
• Driving over or parking on the lawn	$20	$25
• Unauthorized parking and use of a parking permit assigned to another vehicle or person	$25	$40
• Unauthorized parking when a previously issued citation is displayed	$25	$40
• Prohibited double parking	$20	$25
• Parking in areas where official signs prohibit parking or standing at any time	$15	$20
• Parking in an assigned area without displaying a valid parking permit	$5	$10
• Failure to display or have a valid registration	$10	$15
• SPEEDING: Up to 9 miles in excess of the NIH speed limit of 20 mph.	$10	$15
• In excess of 19 mph above the posted speed	$20	$30
• 29 mph in excess of the speed limit	$50	$50

• Over 30 mph the offense becomes a mandatory court appearance, and the fine will be set by the court. □

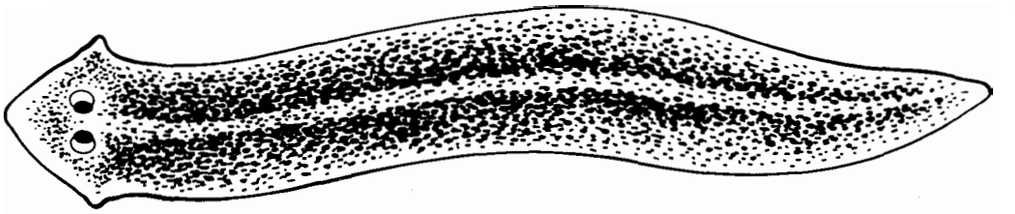
Toastmasters To Train NIH Summer Students

The NIH Toastmasters Club will offer a special training program during the months of June, July, and August at no charge to students temporarily employed on campus.

For the past 5 years, it has been the practice of the club to invite college students to participate in the regular weekly meetings. They are given an opportunity to develop communication skills and observe NIH public speakers in action.

The Toastmasters meetings are open, and held every Friday at noon in Bldg. 31, Rm. B2C-05. All NIH employees are welcome. For further information, call Dr. Hideo Kon, president, 496-1731. □

Cross-Eyed Flatworms Used in Water Toxicity Study



Cross-eyed flatworms about a half-inch long may give scientists a cheap, quick way to learn whether poisonous pollutants are present in the environment in amounts dangerous to humans.

Dr. Jay Boyd Best of the Colorado State University department of physiology and biophysics says his preliminary research indicates that planarians, small worms living in water, react to the same chemicals that cause cancer, brain damage, or birth defects in humans.

Dr. Best maintains that planarians obviously are not as complex as humans but "it appears that the worms may be sensitive to the similar kinds of poisons."

His initial studies have been funded by a Biomedical Research Support grant from the Division of Research Resources.

Planarians, he says, are "relatively complex" creatures in comparison to the bacteria and cultured cells of mammals currently used as short-term tests for cancer-causing chemical compounds. The flatworms have a brain, are capable of simple learning, have drives such as hunger, and even show basic social behavior.

Dr. Best believes the worms could serve as an early warning system to detect poisonous or harmful substances in the environment—such as miners' canaries did in the 19th century. Miners took the birds into coal mines to detect poisonous gases.

As an example, he cites the attractive aspects of using planarians for cancer research. They are cheap and respond quickly to pollutants, sometimes in a matter of hours. Consequently, scientists could test for dangerous chemical compounds at a fraction of the cost and time for comparable testing with mice or rats.

He estimates that a set of tests of 40 possible cancer-causing compounds on rats would cost $750,000. The same tests with planarians would cost less than $25,000 and require much less time.

The Colorado scientist points out that it might be possible to use planarians as a screening device to get a quick indication of how some compounds affect a developing fetus, how they act on an organism over a number of generations, and whether some living system can adjust to higher levels of some harmful compounds. Later, more detailed tests of harmful substances could be performed on rodents or nonhuman primates.

Planarians can reproduce sexually or by fission. In fission, the head and tail of a planarian tear apart. The head then grows a new tail, and the tail grows a new head to yield two planarians. The same thing happens when a planarian is cut in half. The individuals are clones, genetically identical. Experiments could show whether younger members of such a clone could adjust to a higher level of chemicals.

Currently, the cross-eyed planarians are being used in Colorado to detect poisonous mining waters—measuring the toxicity of process water from shale oil extraction. Ground waters and waters from aquifers, streams, and nearby drainage are contaminated in the process. The extent of water contamination is being very quickly checked by the use of the planarians.

They exhibit a radical reaction when exposed to a 0.1 percent concentration of process water. They don't die, but they do reabsorb their own heads. This is a perfect measurable response point.

The researchers have determined the changes planarians go through when they are exposed to different levels of a variety of toxic pollutants such as mercury; cadmium; cancer-causing chemicals that occur in coal tar, lead, pesticides, chlorinated hydrocarbons, nicotine; and others. It was found that they are especially sensitive to heavy metals such as mercury, which causes brain damage and birth defects in humans. It also causes brain damage and abnormal head regeneration of decapitated planarians.

The worms are raised and kept in enamel dishpans in the laboratory. Currently, there are 40,000 of the cross-eyed laboratory animals being maintained on infinitesimal bits of fresh raw beef liver at a total cost of 20 cents a week. □

Israel Scientist Returns For Second Term at Fogarty

Dr. Nathan Sharon, head of the department of biophysics at the Weizmann Institute of Science in Rehovot, Israel, recently returned to NIH to begin his second term as a scholar-in-residence at the Fogarty International Center.

Well-known for his work on complex polysaccharides and for numerous books and reviews on this topic, Dr. Sharon is also recognized for his investigations on the lectins that bind sugars and attach to cell surfaces.

During his first term as a Fogarty scholar, Dr. Sharon organized a conference at the FIC held in July 1978 to discuss Complex Carbohydrates in Biological Recognition. During his tenure as a scholar he also gave seminars to various groups at NIH.

He plans to use his second term to participate in seminars and deliver lectures and to revise his book on complex carbohydrates. □

A good archer is not known by his arrows, but by his aim.—*Thomas Fuller* □

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