

# The NIH Record

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National  
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of  
Health

## NIH Grantee To Receive American Foundation Award

A \$600,000 grant that will be used over the next 5 years to continue the investigation into the basic genetic questions of cancer in humans was awarded last month by the American Business Cancer Research Foundation to Dr. Michael Wigler, 34, an NCI grantee at the Cold Spring Harbor Laboratory in Long Island, N.Y.



Dr. Wigler is a current NCI grantee and has been concentrating his research on the isolation of DNA fragments which appear to cause cancer.

The award, supplied from private donations collected from some of the country's largest corporations, will assist Dr. Wigler's research team in their investigation of the genetics of carcinogenesis. This is the third such award given to leading American scientists over the past 18 months.

Dr. Wigler's research was recommended by Dr. James D. Watson, laboratory director, who in 1962 was the recipient of the Nobel Prize for his pioneering research in determining the structure of DNA.

Since taking his doctorate from Columbia University in 1978, Dr. Wigler has isolated DNA fragments which appear to cause certain specific types of cancer in the bladder, colon and lungs.

The grants, each approximately three times the amount of the Nobel Prize, are given "in recognition of already demonstrated excellence in basic research into the underlying mechanisms of cancer in humans," says Harry D. Williams II, ABCRF's president and founder.

Last year the two scientist grantees were Dr. Raymond Erickson, professor of

(See DR. WIGLER, Page 4)

## NIADDK Elevated to Bureau Status; Four Research Programs Made Divisions

HHS Secretary Richard S. Schweiker announced Apr. 22 the elevation to division status of four research program areas of the National Institute of Arthritis, Diabetes, and Digestive and Kidney Diseases, and designation of the Institute as a bureau.

The action by the secretary created the Division of Arthritis, Musculoskeletal and Skin Diseases; the Division of Diabetes, Endocrinology, and Metabolic Diseases; the Division of Digestive Diseases and Nutrition; and the Division of Kidney, Urologic and Hematologic Diseases.

Currently referred to as "clusters" in NIADDK, headed by Acting Director Dr. Lester B. Salans, each new division will be given more focused responsibility, and greater prominence and authority for the national research effort in its categorical disease area.

"This reorganization will provide a better focus for responsibility for the department's research efforts in these high priority areas and will help the public better understand arthritis, diabetes, digestive and kidney diseases," Mr. Schweiker said.

In elevating the program "clusters" of NIADDK to division status, the Institute has been converted to a bureau, joining the National Cancer Institute, the National Heart, Lung, and Blood Institute, and the National Library of Medicine.

As a bureau, the Institute has been delegated authority in its program and the former clusters will gain greater visibility in their research efforts.

The Division of Arthritis, Musculoskeletal and Skin Diseases, headed by associate director Dr. Laurence E. Shulman, is responsible for the nationwide research

(See BUREAU, Page 11)

## Drs. Pastan, Paul, Costa Elected to Academy



Dr. Pastan



Dr. Paul



Dr. Costa

Two NIH researchers and an NIMH scientist were among 60 new members elected to the National Academy of Sciences on Apr. 27. They were recognized for their distinguished and continuing achievement in research.

Membership in the academy is considered to be one of the highest honors that can be accorded an American scientist or engineer. These new members bring the total number of scientists so honored to 1,386.

The NIH recipients are: Drs. Ira H. Pastan, chief, NCI Laboratory of Molecular Biology, NCI, and William E. Paul, chief,

Laboratory of Immunology, NIAID. The third recipient is Dr. Erminio Costa, chief, Laboratory of Preclinical Pharmacology, NIMH.

Dr. Pastan's *E. coli* research showed that the synthesis of many cellular enzymes is controlled by cyclic AMP. He identified and isolated the cyclic AMP Receptor Protein (CRP) and showed in a cell-free system that cyclic AMP acted by increasing the affinity of CRP for the promoter regions of certain genes and thereby enabling RNA polymerase to initiate transcription.

(See ACADEMY, Page 9)

# The NIH Record

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## Training Tips

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

Communication Skills	Course Starts	Deadline
Principles of Editing	6/2	5/18
Supervisory and Management		
Effective Supervision	6/7	5/21
Planning for Prevention and Results	6/23	6/4
Writing and Classifying Positions in the F.E.S. Format	7/8	6/25

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

For further information on supervisory and management courses, contact the Executive and Management Development Branch, DPM, 496-6371.

## Tay-Sachs Volunteers Needed; Carriers Tested May 25

The NINCDS Developmental and Metabolic Neurology Branch needs Tay-Sachs carriers to volunteer as controls for a study involving screening and monitoring of pregnancies-at-risk for the disorder. Blood samples are needed; contact Jane Quirk, 496-3285, Bldg. 10, Rm. 3D-40, for more information.

Also, carrier testing for Tay-Sachs disease will be sponsored by the National Capital Tay-Sachs Foundation May 23 in Rockville. Call the Foundation, 279-5878, for additional information, or to make an appointment for a diagnostic blood test. □



In March, the American Cancer Society presented the Hubert H. Humphrey Inspirational Award to former First Lady Betty Ford at its annual Salute to Volunteers Luncheon in Washington, D.C. Frances H. Howard (l), sister of the late Senator, delivered remarks at the luncheon and praised Mrs. Ford for helping "literally millions of American women to understand the importance of regular health checkups for the early detection of cancer." Mrs. Howard is special assistant to the associate director for Extramural Programs at the National Library of Medicine. Also present was Dr. Robert V.P. Hutter, ACS president.

## FAES Open Season To Be Held May 10-21

The Association of Visiting Fellows Group Hospitalization Program, sponsored by the Foundation for Advanced Education in the Sciences, will have "Open Season" from May 10 through May 21.

Visiting fellows, NIH postdoctoral fellows, commissioned officers, visiting scientists and associates (12 month appointment or less), experts, consultants, guest workers and full-time temporary civil service employees who have not yet enrolled in the program will be eligible for coverage with certain restrictions because of the late joining.

Any current subscriber may change to the high option plan or to family coverage. All changes will be effective July 1, 1982.

For an appointment, call 496-7976 from May 10 to May 21. □

## Judo Classes To Start

The NIH Judo Club is accepting applications for its summer beginners class. The basic judo course involves a series of 10 classes to be held on Tuesdays, 6 to 7:30 p.m., beginning May 18 and ending July 20. Classes will be held in the old gymnasium at the Stone Ridge School, at the corner of Cedar Lane and Wisconsin Avenue.

The fee for the course is \$35. Applications can be obtained from Kathleen Thomas or Dr. Thomas E. Malone, Bldg. 1, Rm. 132. Space is limited, and those accepted will be notified. For further information, call Ms. Thomas, 496-2121. □

The art of conversation is the art of hearing as well as of being heard.—William Hazlett □

## Reminder: Dyer Lecture Is May 12

The 1982 R. E. Dyer Lecture will be a two-part presentation to take place on Wednesday, May 12, starting at 8:15 p.m. in the Masur Auditorium.

Dr. David Davies, chief, molecular structure section, Laboratory of Molecular Biology, NIADDK, will present the first part of the lecture entitled, The Three-Dimensional Structure of the Antibody Molecule: Specificity and Diversity.

Dr. Michael Potter, chief, immunochemistry section, Laboratory of Cell Biology, NCI, will next discuss mechanisms of diversity in a series of closely related antibody molecules. □

## Older Drug Use in Cancer Topic of June Meeting

The NCI Division of Cancer Treatment is sponsoring a conference on A New Look at Older Drugs in Cancer Treatment, June 8-9 in Wilson Hall.

The conference will include presentations by experts in cancer treatment who will summarize the proceedings and recommendations from a series of workshops, collectively titled the Project to Review Older Drugs.

Over the past year, five workshops have been held by NCI to reexamine available scientific and clinical data on selected anticancer drugs, including pyrimidines, purines, alkylating agents, and natural products.

The June conference will also feature invited papers on screening procedures and a proposed system for systematic review of older anticancer drugs. A portion of the program has been set aside for brief presentations of recent data on older drugs.

For further information, contact: Dr. Vincent T. Oliverio, Bldg. 31, Rm. 10A-03, or call 496-9138. □

## Volunteers Needed for Lipid Study

Healthy women, 18 to 32 years of age, interested in beginning birth control pills, are needed to participate in an oral contraceptive lipid study at the George Washington University Medical Center. The study is supported by NICHD. Women who have personal/parental diabetes or who are currently taking oral contraceptives are not eligible.

For further information, call Diane Stoy, R.N., at 676-4152. □

## Tissue Culture Media Session To Be Held May 18

The Supply Operations Branch, DAS, has scheduled a workshop to be conducted by Gibco Company and Millipore Corporation on May 18 in Bldg. 30, Rm. 117. The seminar hours are from 9:30 a.m. to 11 a.m., and from 1:30 p.m. to 3 p.m.

The subject for discussion will be Tissue Culture Media Preparation and Sterilization. Also featured will be a demonstration of the ease and convenience in media preparation techniques. □

## Azaleas, Azaleas—More Azaleas

Each spring the—whites, reds, pinks, purples—and other budding colors appear in our backyards and dot our neighborhoods with a refreshing majesty that rekindles mankind's appreciation for the colorful spectrum that nature can provide.

For most of us, the wait is only through the cold winter months. For others, like William C. Miller, an NIA program analyst, the anticipation of waiting for spring's wonders is a more lengthy commitment. For the past 4 years, he has tended over 200 azalea plants that are growing in and around his Bethesda home.

Some of these plants were started from



Mr. Miller inspects an early blooming Purple King in his garden.

seed last year in his basement, and others were hybridized in a special growth hormone mixture. Still others were purchased as small plants and are this spring showing their mature splendor for the first time.

"Part of the excitement is waiting for the bloom," says Mr. Miller, who, when not handling a delicate bloom or cutting, is qualifying for another advanced degree in karate. Recently, he qualified for a second-degree brown belt Tae Kwon Do, and has served for several years as an associate instructor with the NIH Karate Club.

### Avid Interest in Azaleas

Mr. Miller's interest in his backyard azaleas has grown into a passionate exploration and study of the almost infinite varieties of azaleas and their proper care and propagation. Today, he is president of the Brookside Gardens (Wheaton) Chapter of the Azalea Society of America and on the society's national board of directors. His interest in these plants is also shared by Dr. Charles H. Evans, Laboratory of Biology, NCI, who is chapter treasurer and produces articles to the club's newsletter.

Mr. Miller, his wife, Janet, and his mother-in-law (who got him interested in azaleas) are involved in organizing the upcoming azalea show to be held at Brookside Gardens, South Conservatory, in Wheaton, from noon to 5 p.m., on Saturday, May 15 and Sunday, May 16, from 9 a.m. until 5 p.m. The public is invited to attend. The blue ribbon winners will be announced on Sunday at noon.

"This area is good for growing azaleas because the soil is acidic; azaleas love acid," says Mr. Miller, noting that besides the common varieties of reds and whites most people have around their homes, his plant collection now includes plants not normally found in this area.

Around Mr. Miller's home are such varieties as Geisha (white), Day Spring (pink), Martha Hitchcock (a bicolor), Marian Lee (an alizarian pink), Vespers (white), and Parfait (white with a pink wash). He particularly likes Flame or Suetsumu, a hybrid Oriental azalea that gives an orange-red bloom.

During a recent walking tour of his garden, Mr. Miller paid homage to Ben Morrison, the deceased horticulturalist who developed the famous Glenn Dale hybrids when he was chief of the Plant Introduction Center and later director of the National Arboretum. He then reaffirmed his commitment to the further study of these hearty plants that bloom at different times of the year and are not just restricted to spring.

Besides his personal azalea study, he conducts a nationwide correspondence with other azalea club members (some of whom are nursery owners who send him seeds).

"I'm not sure which one I'll enter into the contest," says Mr. Miller, about the several azalea entries he is considering for the Brookside Gardens show. "I usually don't decide until the night before; that is also part of the excitement of being involved with azaleas." □

## Bike Race and Repair Course Gear Up

The second annual noontime NIH Novice Bicycle Race is scheduled to roll on Wednesday, June 2. The spring event is open to all "novice" racers who bring a bicycle to the starting line in front of Bldg. 1.

The event will cover the same route as the NIH Institute Relay. A total of 2 miles in 1/2-mile laps will be completed by men and women over 35, and 4 miles by men and women under 35.

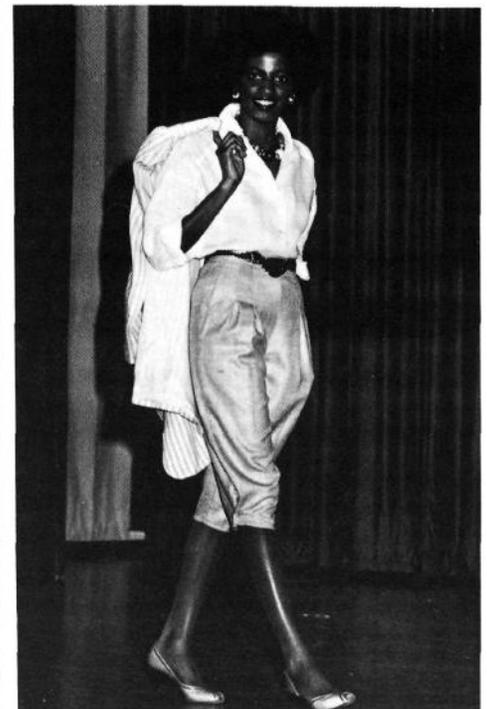
Helmets are required; however they may be borrowed, say organizers.

Entry forms are available at the R&W Activities Desk, Bldg. 31, Rm. 1A-18, and should be submitted by May 26.

### Repair Course Offered

Besides the race, the NIH Bicycle Comuter Club is sponsoring a practical bicycle repair course open to all NIH employees and their families. It will be held on four consecutive Mondays beginning June 7, from 5:30 to 7:30 p.m. The course is being taught by two experienced club members.

The sessions will cover the basic understanding of the operation of a bicycle and how to maintain it in proper operating condition. In addition, there will be a discussion on how to overhaul a bike. The last session will deal with brakes, wheel timing, and spoke replacement.



Cheryl D. Rone, NIH News Branch, was one of six NIH models showing the interchangeability of clothes to create different effects during a Fashion Workshop sponsored by the Clinical Center during Professional Secretaries Week. Over 300 people attended the show which began with a lecture on the Professional Image by Frankie Swenholt, Swenholt Associates. She talked about assertiveness, body language and communication. The fashion show followed the lecture with Francine Baumhaft, from Claire Dratch of Bethesda, acting as commentator.

The course is being restricted to the first 15 people who sign up. The four-session course is \$15, or \$4 for each session, and an illustrated course syllabus is provided.

For more information about the race, the bike repair course, or general club membership, contact Louis Mocca, 496-1920. □

## NIH Institute Relay Race Will Be Held on May 26

After the noon running of the 5th NIH Institute Challenge Relay on Wednesday, May 26, a "runners" party will be held later that day at the FAES House, corner of Cedar Lane and Old Georgetown Road.

This annual spring festival and carnival of spring running is being sponsored by the NIH Health's Angels and the R&W Association. A nominal fee of \$2.50 is assessed for each five-member team. Applications are still available at the R&W Activities Desk in Bldg. 31. The number of relay teams this year is being restricted to the first 80 teams to sign up by May 21.

Official race results will be posted at the post-race party which is open to all runners and their friends. Also, a film of the 1981 New York Marathon and a videotape replay of the day's race will be shown. □

## Male Infertility Research Points to Biochemical Cause

The first known biochemical cause of male infertility has been identified by a team of scientists from the National Institute of Child Health and Human Development, Laval University, and the Population Council. They found that an enzyme deficiency causes some men to produce nonmotile sperm.

The underlying cause of most male infertility is poorly understood. A man's ability to become a father depends largely on whether or not his sperm are functioning properly. Sperm function, in turn, depends on biochemical processes about which little is known.

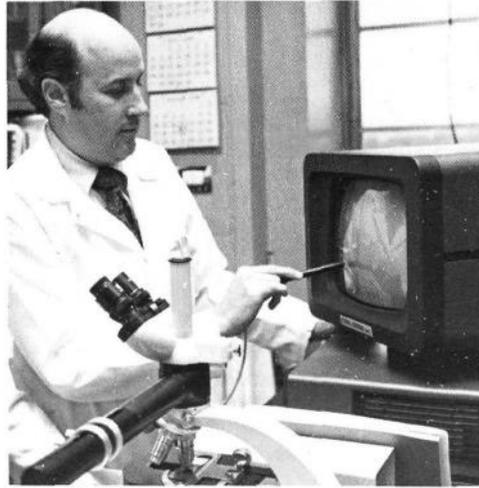
"The new finding will aid our understanding of the biochemical basis of male infertility," says Dr. Richard Sherins, the NICHD member of the research team.

A major part of sperm function is motility. Sperm must swim to reach and fertilize an egg. Scientists know little about the mechanisms that control this purposeful movement.

Some men who are infertile because of low or absent sperm movement have sperm with structural defects. The sperm of most of these men, however, appear normal structurally.

Recent studies have shown that an enzyme called protein-carboxyl methylase is involved in controlling the movement of bacteria and certain white blood cells.

The testes, which produce sperm, have a high concentration of this enzyme, and



Dr. Sherins examines tissue taken from a patient being treated by NICHD for infertility.

all the components for PCM activity are present in the tail of mature sperm. These considerations suggest that PCM is involved in regulating sperm motility.

To determine if this is the case, the scientists looked at the levels of PCM activity in the semen of three groups of men: 22 normally fertile men, 10 vasectomized men, and 9 patients with infertility caused by sperm nonmotility.

They found that PCM activity in the semen of the infertile patients was only one-fourth that of the fertile men, and was

similar to PCM activity in the semen of the vasectomized men, which contained no sperm.

The researchers concluded from these findings that PCM is involved in controlling sperm movement, and that PCM activity in semen is concentrated mainly in the sperm.

Their conclusions are supported by the recent finding that substances which inhibit PCM activity also hinder sperm motility.

The cause of the PCM deficiency in the infertile patients is unknown. Through biochemical tests, the researchers ruled out the possibility that low PCM activity was the result of a high number of dead sperm in the semen or of leaky sperm membranes, through which PCM could escape.

Using an electron microscope, they also showed that low PCM activity was not associated with structural abnormalities in sperm.

PCM is not the only mechanism controlling sperm motility, the researchers noted. Most likely, sperm movement is regulated by a series of biochemical reactions. Elimination of any one of these reactions might result in infertility.

This study was reported in the Apr. 8, 1982 issue of the *New England Journal of Medicine* by Dr. Claude Gagnon of Laval University, Dr. Sherins, and Drs. David Phillips and C. Wayne Bardin of the Population Council at Rockefeller University. □

## DR. WIGLER

(Continued from Page 1)

pathology at University of Colorado Medical School, and was the researcher who first isolated the transforming protein associated with cancerous growth.

The other was Dr. Philip Leder, professor of genetics at Harvard Medical School and former chief of the Laboratory of Molecular Genetics, National Institute of Child Health and Human Development. He is a genetic engineering expert who has done fundamental work on the molecular genetics of normal and cancerous cells. Both shared a \$1.2 million grant.

### Formed in 1978

The ABC Research Foundation was formed in 1978 by Mr. Williams, a Southport, Conn. businessman (whose family had been recently touched by cancer). His intention then was to raise money for cancer research from private industry and labor to support fundamental, basic scientific research into the causes of cancer in humans.

Mr. Williams believes that "until we can answer the basic question as to what causes human cancer, the dilemma facing not only our government regulatory agencies, but most especially almost all of our major industries, is almost unsolvable."

Dr. Wigler was selected for the award after the foundation's distinguished scientific advisory board spent a year reviewing the work of leading cancer researchers. □

## FASEB Meeting Draws Over 20,000 Attendees

More than 9,500 papers reporting research findings covering the spectrum of life sciences were presented at the 66th annual meeting of the Federation of American Societies for Experimental Biology in New Orleans, La., Apr. 15 to 23.

The 22,000 M.D. and Ph.D. members of the six constituent societies represent basic research disciplines in the biomedical and biological sciences and are drawn from research, educational and clinical institutions throughout the United States.

Nearly 20,000 participants attended this year's meeting with representatives from 45 foreign countries, and many NIH researchers participating. It is the largest annual medical meeting held in the world.

The program featured four interdisciplinary themes: connective tissue, control of cell growth, diabetes mellitus and hypertension. Approximately 325 organizations were represented by some 650 scientific technical and educational exhibits.

The NIH Office of Communications with the Division of Research Grants exhibited a central information booth, as did the National Heart, Lung, and Blood Institute, the National Institute of Child Health and Human Development, the National Institute of General Medical Sciences, the National Institute of Neurological and Communicative Disorders and Stroke, the Veterinary Resources Branch of the Divi-

sion of Research Services, and the Division of Research Resources.

Dr. D. Bernard Amos, a Duke University immunologist and NIH grantee of both the National Cancer Institute and NIGMS, was presented the 3M Life Sciences Award for his work on human organ and tissue transplantation (see Mar. 16 issue of *The NIH Record*, p. 1). The 3M award was established 7 years ago to honor researchers whose work has made a significant contribution to the health and welfare of mankind. □

### 1982 CFC Campaign Hits Record High

The 1982 Combined Federal Campaign was reported to be the most successful ever conducted. A total of nearly \$14 million was collected or pledged, representing an increase of \$1,350,000 over the 1981 campaign figures.

The 1982 NIH final results, as revised by coordinator William Fitzsimmons, came to \$252,000, representing an increase of \$13,000 over the prior year. □

When things go bad or when things go glad, just remember that life is a circus. So try to endure the adversities you meet, and enjoy the "clowns" you greet, and savor the aroma of all the rest of life's entertainments. —Gordon Jerome. □

## Dr. Robert Philip Retires From Rocky Mt. Laboratory



Recognized internationally for contributions in medicine and public health, Dr. Philip collaborated with British scientists in evaluating the causative role of psittacosis-group organisms in human disease, particularly venereal infections.

Dr. Robert N. Philip, acting chief of the Rocky Mountain Laboratory's Epidemiology Branch, NIAID, in Hamilton, Mont., retired recently after 35 years with the Public Health Service. He spent the last 22 years at the Laboratory.

Much of his research at RML had been concerned with diseases of wildlife transmissible to man, including Q fever, tularemia, Colorado tick fever, and Rocky Mountain spotted fever.

Dr. Philip's most significant research contributions have been in the diagnosis and control of Rocky Mountain spotted fever. He developed a laboratory technique that enables an accurate diagnosis of the disease in humans, replacing a complement-fixation test that was only about 60 percent accurate.

This technique also provided a means of distinguishing naturally occurring strains that cause human disease from nearly a dozen closely related but harmless ones which circulate in ticks and wildlife.

This finding helped explain the natural maintenance of spotted fever organisms and eliminated much of the confusion that had persisted since Howard Ricketts did his pioneering research in Hamilton in the early 1900's.

Dr. Philip initially was assigned in 1949 to the National Microbiological Institute (predecessor of NIAID), Bethesda, where he assisted in the early field trials of influenza vaccines. He later served with Arctic Health Research Center in Alaska, conducting epidemiologic investigations of tuberculosis and other infectious diseases among Alaskan natives.

In 1960 Dr. Philip was transferred to the RML, becoming assistant director in 1965. When the Lab was reorganized in 1979 into three principal research units, he was appointed acting chief of the Epidemiology Branch.

He received his M.D. degree from the University of California and masters of public health from Harvard Medical School. □

## Veteran Science Writer, Walter Froehlich, Offers Scientists Advice on Communicating

Considering himself "a bridge between the man in the laboratory and the man in the street," veteran science writer Walter Froehlich recently offered NIH scientists advice on how they can help avoid errors and misinterpretations of their work in newspapers and magazines.

His seminar, *Communicating Science* in the 1980's, was presented to the scientific group in the Bldg. 10 Solarium.

A science writer for over 25 years, Mr. Froehlich has come up with "Froehlich's Five Laws for Happier Press Relations" in an effort to make it easier for researchers and the press to communicate.

"It's part of my job to—literally and figuratively—look over the shoulders of the men and women who do the research and to talk with them about their work and its implications," he said. "As a writer, I try to communicate what I see and hear in a way the nonscientist can understand and find interesting to read."

The public in this communication process includes scientists wanting to know about developments in fields other than their own. They, too, may have difficulty understanding journal articles outside their own disciplines. Therefore, the popular science writer has also become an interdisciplinary link for scientists, he added.

"In a free society it is imperative that the public have full access to information about what the scientists are doing. Only in that way can the public participate knowledgeably in decisions which may profoundly influence the lives of nearly everyone and the well-being of our communities," he said.

The responsibility for accuracy in reporting rests entirely with the writer, editors, and publishers. Sometimes the need to condense stories to fit available space and time can lead to mistakes particularly when in the shortening process, qualifying sentences or clauses are omitted.

Inadvertent errors and exaggerations can occur under deadline pressure, or from competition, or lack of understanding of the subject matter, but "deliberate distortion occurs extremely rarely," he said.

Mr. Froehlich offered the following five rules to scientists for lessening the danger of errors or misinterpretations in news and feature articles describing their research procedures and experimental results:

### Froehlich's Five Laws

1. Prepare for an interview somewhat in the same way as for a lecture. Know exactly what it is that you want to communicate. One way to check is to ask: If the writer were to forget everything else I say, what is the one thing I would most want remembered?

Condense that thought into one or two, but no more than three, short sentences, and tell these to the writer at the start of the interview. Repeat that message several times over the course of the interview. It is hoped that will become the lead or theme

of the story.

2. Be understandable. Most scientists overestimate a writer's ability to understand professional jargon and comprehension of complex scientific concepts—particularly when presented quickly.

Writers cannot always keep up with developments in every specialty. Keep the discussion simple and try to offer examples and case histories illustrating the points to be emphasized.

3. Explain the significance of the work by putting it into its appropriate context. Is what you are doing unique? Are other scientists doing similar work? If it is not a breakthrough, tell the writer very emphatically, "This is not a breakthrough!"

4. Don't try to hide important news. Don't sit on a good story. If a story leaks, control may be lost over the manner and tone of its dissemination. If it is released by the researcher himself, he has a better chance of telling it in his own words in an orderly fashion. It is best to invite the press so that writers can ask questions and get the full story than have to rely on hearsay.

5. Seek help and advice from your organization's public information staff. Each Institute has a highly professional, trained and skilled staff of public information specialists who are familiar with the workings of the press and the electronic media. They work specifically for each Institute and know many writers and editors. They can help forestall problems.

Observance of these rules may lessen the risks of errors and misunderstanding and could lead to a more satisfying and mutually beneficial relationship between scientists and writers as well as a better-informed public.

Mr. Froehlich spent 6 weeks during March and April on campus as a science writer-in-residence under a fellowship from the Council for the Advancement of Science Writing. His official host during his NIH residency was Dr. William E. Paul, chief of NIAID's Laboratory of Immunology.

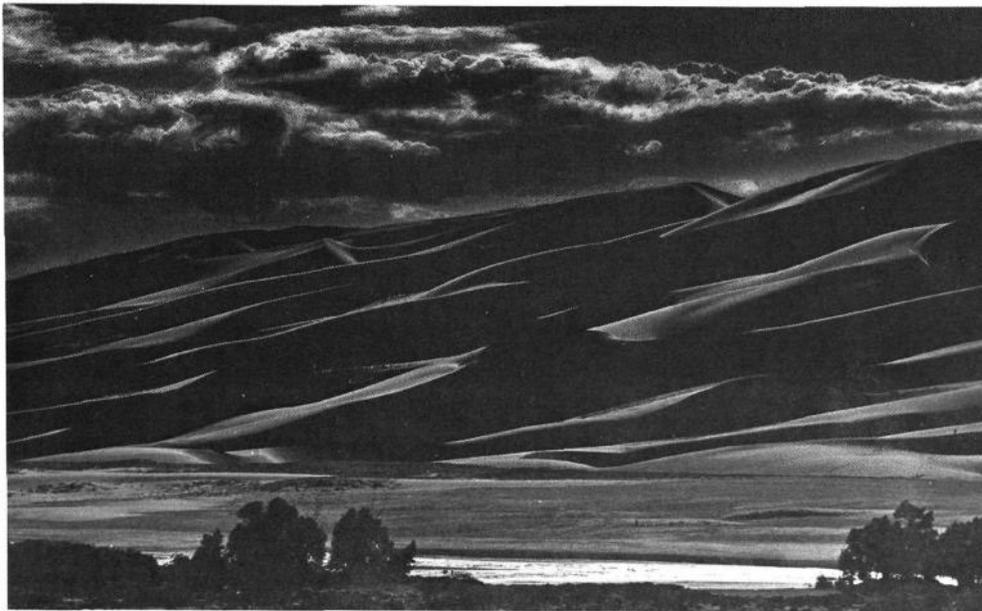
Formerly a newspaper science writer in upstate New York, and for several years science editor for the United States Information Agency (now known as the International Communications Agency), Mr. Froehlich currently manages his own news and feature service called International Science Writers. □

### M.S. Public Health Degree Offered at Howard University

The Howard University Public Health Program is now accepting new master of science in public health candidates for the fall 1982 semester.

While a full-time program is available, health professionals working in the Washington metropolitan area may apply for part-time study. The deadline for application is August 1982. Further information may be secured from Dr. A. Eldadah at 636-6300. □

# Camera Club Photo Competition Winners



Storm Across the Dunes by John Boretos



Ira's Watch by Randall Boretos

## Black and White Entries



Braille by Randall Boretos



Attack by Ken Rhodes

The 1982 NIH photo competition, sponsored by the NIH Camera Club, was held on Apr. 13 in Wilson Hall. First place winners were John Boretos for black and white prints; George Hartley for color prints; and Tom Waldmann for slides.

The competition was open to NIH employees, and club members and their families. Over 70 photographers competed, submitting a total of 218 photos and slides which were judged by Dr. Joe Atcheson, Milton Widler, and Leon Rothenberg—all prize-winning photographers and officers of other camera clubs in the area.

The next meeting, to be held on May 11 starting at 7:30 p.m. in Bldg. 31, Rm. 4, will feature open competition on any subject. The judge will be Gordy Corbin, who will also present four prize-winning slide/tape shows on various subjects, including lighthouses and photographing photographers.

All members of the NIH community interested in joining the club are invited to attend.

### Black and White Prints (51 entries)

First	John Boretos	Storm Across the Dunes
Second	Ken Rhodes	Attack
Third	Randall Boretos	Braille

#### Honorable Mention

John Boretos	Trailing Snag
Randall Boretos	Practice
Randall Boretos	Ira's Watch
Martin Heavner	Gymnast Silhouette

### Color Prints (56 entries)

First	George Hartley	Day Off from Fishing
Second	Don Spence	View from Mt. Pauli
Third	Mark Smith	Thomas Point Light

#### Honorable Mention

Randall Boretos	Mormon Temple
Morris Graff	Escape Pattern
John Cormack	Longdale Pikes
Steve Weissberg	Wachipauka Pond, N.H.
Martin Heavner	Caboose Rail

### Slides (111 entries)

First	Tom Waldmann	Hickory Horn Devil
Second	Leroy Kerney	World Trade Building
Third	Martin Heavner	Sno-Cone Boy

#### Honorable Mention

Tom Waldmann	Blow Seeds to the Winds
Larry Ostby	Time and Space
Jay Berzofsky	Queen Angel
Carol Waldmann	Fallen Leaf
Tom Waldmann	Sail Away
Jack Kalberer	Vermilion Flycatcher
Joy Richmond	Shoestrings
Frieda Weise	Christmas Cactus
Morris Graff	Barrel Race
Arlene Kantor	Still Tomatoes
Leroy Kerney	Reaching Up
Frieda Weise	Black and White
John Boretos	Surf Fishing
Leroy Kerney	Lily of the Valley

### Hotline for Americans Is Available

If Americans are arrested or detained in foreign countries, their families may be able to get help from the U.S. State Department's Citizens Emergency Center. The center often arranges legal advice, transfer funds from family or friends and find medical assistance.

Located in Washington, D.C., it is open from 8:15 a.m. to 10 p.m., Monday through Friday, and the telephone number is (202) 632-5225. At other times, a duty officer is available for emergencies at (202) 632-1512. □

## Dr. Yates Named NCI Associate Director

Dr. Jerome W. Yates became associate director of the National Cancer Institute's Division of Resources, Centers, and Community Activities in April.

Dr. Yates will be responsible for research in the areas of cancer control, continuing care and rehabilitation, as well as activities involving centers and community oncology programs.

In addition to the centers program, the ongoing Cancer Control Program for Clinical Cooperative Groups and the Community Hospital Oncology Program will be under his direction.

New NCI programs to be under his direction include the Community Clinical Oncology Program, and Cancer Control Research Units which address cancer prevention and/or management in controlled populations, as well as the Cancer Control Science Program.

From 1968 to 1974, Dr. Yates was at Roswell Park Memorial Institute, first as a clinical fellow in medical oncology, and then as a member of the staff.

In 1974, he moved to the University of Vermont in Burlington where he participated in the development of the new Vermont Regional Cancer Center as planning director.

In 1976, Dr. Yates became associate director of the cancer center, and in 1979 he



Last year, Dr. Yates received his masters in Public Health from Harvard University, focusing on epidemiology. He received his medical degree from the University of Illinois College of Medicine in 1965.

became a professor of medicine at the university.

Prevention of infection, cancer chemotherapy, the quality of life of cancer patients, and supportive care including the management of pain in advanced cancer patients, are prominent in the subject matter of his more than 50 published articles or abstracts. □

## NIEHS Appoints 3 New Advisory Council Members

Three new members were appointed recently to the National Advisory Environmental Health Sciences Council. The new appointees are Drs. William H. Hulet, Edward A. Smuckler, and Thomas E. Warriner.

Dr. Hulet is chief of the marine medical division, and also of hyperbaric medicine at the University of Texas Medical Branch at Galveston. He is professor of internal medicine and physiology and biophysics at the university, and an adjunct professor of marine science at the University of Miami.

Dr. Smuckler, professor and chairman, department of pathology at the University of California, San Francisco, is a member of the editorial boards of several major medical journals including *Cancer Research* and *The American Journal of Pathology*. He received his M.D. degree from Tufts University School of Medicine and a Ph.D. in experimental pathology from the University of Washington.

Mr. Warriner, J.D., assistant attorney general for the State of California, is a legal specialist in general civil law, administrative law, and criminal trial and appellate practice. He served two terms as deputy attorney general for the State of California, and was deputy director of the California department of health from 1973 to 1974.

As California's assistant attorney general since 1979, he has extensive experience in legal aspects of health research and health care. □

## Dr. Das Joins NIAID As Executive Secretary

Dr. Nirmal K. Das, has been appointed executive secretary of the allergy, immunology and transplantation research committee of the National Institute of Allergy and Infectious Diseases and of its two subcommittees: allergy and clinical immunology, and transplantation and immunology.



A native of India, Dr. Das came to the United States in 1952. Trained as a cell biologist, he earned a Ph.D. from the University of Wisconsin.

He will be responsible for administering review of NIAID grants and contracts, and will provide advice to the Institute on a number of program and review related activities.

Dr. Das joined NIAID after 3 years with the National Institute on Aging as program director for cell biology. While with NIA he was honored with an NIH Special Achievement Award and NIH Certificate of Recognition and Appreciation for Exemplary Service. □

## 'Living With Cancer' TV Film To Be Previewed on Campus

A new television film, *Living With Cancer*, will be previewed on Thursday, May 27, starting at noon in the Masur Auditorium. The 1-hour film features NCI medical secretary Lorraine Ferrick and her husband, Michael. Dr. John C. Fletcher, assistant for bioethics, Clinical Center, will present the introduction.

Produced by station WCVB-TV in Massachusetts, the film is scheduled for telecast over public broadcasting throughout the country. All employees are invited to attend the preview. □

## Performance Management Q&A List Is Now Available

Since the implementation of the Employee Performance Management System at NIH in October 1981, numerous questions have arisen concerning its operation.

In response to the need for additional information on the new system, the Division of Personnel Management has solicited and collected recurring and significant questions, developed answers, and prepared a question and answer list.

Copies of this list are available to employees through their BID EPMS coordinators who can be identified by calling their respective personnel offices. □

## Monthly Safety Poster Series Features Chemical Waste Disposal

The Division of Safety's OD Safety Poster for May reminds everyone to dispose promptly of their chemical waste. "Waste Chemicals—Mark It . . . Don't Break It . . . Call Us . . . We'll Take It" are the words associated with the safety poster being displayed in all laboratory buildings.

For pickup of chemical wastes, call 496-4710. For further information or clarification of a particular chemical waste problem, call the Division of Safety's Environmental Protection Branch, 496-3537. □



Dr. Ciriaco Gonzales, director of the Division of Research Resources' Minority Biomedical Research Support program, explores the impact of Federal Government politics on biomedical research with students at the University of California at Irvine. He was one of four Hispanic experts in the arts and sciences invited to speak at UCI's annual Chicano-Latino Colloquia held recently.

## Robert J. Harris Retires; Was Computer Operator



Mr. Harris has recently been working night shifts in the "shared spool" system which directs all data processing jobs to any of the computers that are linked together and waiting for a job, such as analysis of lab data, personnel records, or scientific research.

Robert Jerome Harris, a computer operator in the Division of Computer Research and Technology, retired recently after 33 years of Federal service.

Mr. Harris came to NIH in 1959 as messenger, and then as driver for former NIH Director Dr. James A. Shannon. As Dr. Shannon's driver, he met many interesting people, including the King and Queen of Belgium.

He recalls, "One day while in the hallway of HEW North Building, I ran into Robert F. Kennedy, U.S. Attorney General, and nearly knocked him down. When I apologized, Mr. Kennedy responded, 'You can be on my touch team anytime!'"

In 1967 Mr. Harris joined the Computer Center Branch, DCRT, pulling tapes and operating an IBM 340 machine. "When I started, the machines only did one batch job, and now the IBM 360-175 performs at 25 different ones," he said.

He began his government career in 1947 with the Postal Service. From 1950 to 1952 he served in the U.S. Army infantry as communications sergeant, stationed in West Germany near Dachau. He was trained as a radio operator.

A native of Washington, D.C., Mr. Harris' hobbies include photography, custom designing and modifying automobiles and operating a short-wave radio.

In retirement he intends to devote more time to these interests. He also plans to refurbish his waterfront home in St. Mary's County, and do lots of fishing. □

## Six Flags Has Great Adventure!

Six Flags Great Adventure in Jackson, N.J., is approximately 2 1/2 hours from Baltimore. Situated on 1,100 acres, it is a themed amusement park with more than 100 rides, shows, and featured attractions. Tickets are available at the R&W Activities Desk, Bldg. 31, Rm. 1A-18. □

## Visiting Scientist Program Participants

Sponsored by Fogarty International Center

4/1 Dr. Takayuki Hasegawa, Japan, Laboratory of Molecular Biology. Sponsor: Dr. Kenneth Yamada, NCI, Bg. 38, Rm. 4E16.

4/1 Dr. Krishnamurthy Rao, India, Laboratory of Biochemistry and Metabolism. Sponsor: Dr. Richard Klausner, NIADDK, Bg. 10, Rm. 9N116.

4/1 Dr. Esmail Tabibi, Iran, Pharmaceutical Resources Branch. Sponsor: Dr. James Craddock, NCI, Bg. 37, Rm. 6D12.

4/1 Dr. Shun'ichiro Taniguchi, Japan, Cell Genetics Section. Sponsor: Dr. Takeo Kukunaga, NCI, Bg. 37, Rm. 3E08.

4/1 Dr. Shinichi Tsubaki, Japan, Laboratory of Neuropathology and Neuroanatomical Sciences. Sponsor: Dr. Milton Brightman, NINCDS, Bg. 36, Rm. 3B28.

4/4 Dr. Sina Bahmanyar, Iran, Laboratory of Central Nervous System Studies. Sponsor: Dr. Carleton Gajdusek, NINCDS, Bg. 36, Rm. 5B25.

4/4 Dr. Takashi Matsuda, Japan, Laboratory of Physical Biology. Sponsor: Dr. Richard Podolsky, NIADDK, Bg. 5, Rm. 110.

4/7 Dr. Gurpreet Ahluwalia, India, Biochemistry Section. Sponsor: Dr. David Cooney, NCI, Bg. 37, Rm. 5B22.

4/7 Dr. Nicholas Tsourmas, U.S., Arthritis and Rheumatism Branch. Sponsor: Dr. John Decker, NIADDK, Bg. 10, Rm. 9N218.

4/12 Dr. Shingo Kato, Japan, Genetics and Biochemistry Section. Sponsor: Dr. Rafael Camerini-Otero, NIADDK, Bg. 10, Rm. 9D08.

4/14 Dr. Juan Bonifacino, Argentina, Endocrinology and Reproduction Research Branch. Sponsor: Dr. Maria Dufau, NICHD, Bg. 10, Rm. 12N-216.

4/18 Dr. Robert M. Buller, Canada, Intramural Research Program. Sponsor: Dr. Gordon Wallace, NIAID, Bg. 5, Rm. 137.

4/19 Dr. Gergely Heja, Hungary, Laboratory of Cellular and Molecular Biology. Sponsor: Dr. Josef Pitha, NIA, GRC, Baltimore, Md.

4/19 Dr. Tadahito Kanda, Japan, Laboratory of Molecular Microbiology. Sponsor: Dr. Kenneth Takemoto, NIAID, Bg. 5, Rm. B126.

4/19 Dr. Gilberto Pizzolato, Italy, Laboratory of Neurosciences. Sponsor: Dr. Stanley Rapoport, NIA, GRC, Baltimore, Md.

4/19 Dr. Fritz Thoma, Switzerland, Laboratory of Nutrition and Endocrinology. Sponsor: Dr. Robert Simpson, NIADDK, Bg. 5, Rm. B128.

4/23 Dr. Mohammed Zuber, India, Laboratory of Molecular Oncology. Sponsor: Dr. Donald Court, NCI, Bg. 37, Rm. 4B03.

## Annual Carcinogens Report Is Now Available

Eighty-eight chemicals, pharmaceuticals, pesticides and other substances are reviewed in the *Second Annual Report on Carcinogens*, now available from the National Toxicology Program.

The volume describes each substance, its use, estimates how many people are exposed and where; provides the evidence for its carcinogenicity; and describes how it is regulated.

The substances were picked from those evaluated by the International Agency for Research on Cancer in Lyon, France, and HHS' National Cancer Institute and National Toxicology Program.

The report is free, and available by writing the National NTP Public Information Office, MD B2-04, P.O. Box 12233, Research Triangle Park, N.C. 27709. □

## Preschool Plans 'Springfest'

Parents of Preschoolers, Inc., which operates the NIH child care programs, plans its third annual Springfest for Saturday, June 5, from 10 a.m. to 3 p.m., on Old Georgetown Road and Lincoln Drive (behind Bldg. 35).

Fund raising will include carnival games, a rummage sale, a plant and bake sale, and crafts fair.

### Donations Will Be Picked Up

Tax deductible donations of recyclable items, including furniture, household items, used books and records are needed. Arrangements for pickup of large items in the home or office can be made by the Preschool Developmental Program in Bldg. 35.

Persons interested in selling their crafts or setting up a flea market table are also invited to participate.

For further information call Sherrie Rudick, 496-5144, or Lilian Burch, 946-8594. □

## Herbert Lee Bing Dies; Was Insect/Rodent Specialist



Herbert Lee Bing

Herbert Lee Bing, 53, an NIH employee for 28 years before retiring from the Pest Control and Consultation Section, OD, in 1981, died of cancer Apr. 16 at the Washington Hospital Center. He lived in Silver Spring.

Mr. Bing was a native of South Carolina and moved to this area about 1950. He was a noncommissioned officer in the Army in the 1950's, and had been a member of the Hiram Lodge No. 4 of the Masons and the First Baptist Church of Silver Spring.

Mr. Bing originally came to NIH in 1955 and worked as an animal caretaker. In 1958, he joined the Insect and Rodent Control Section, where he worked primarily on the night shift. In that job, he was engaged in surveillance and control of insects and rodents in NIH buildings until he retired.

He is survived by a daughter from his first marriage, Virginia M. Bing of Silver Spring, five brothers, and seven sisters.

# ACADEMY

(Continued from Page 1)

While at NCI, he and his associates determined that cancer cells could regain some properties of normal cells by treatment with cyclic AMP. This discovery led to a series of studies on the role of cyclic AMP in the regulation of the growth and other properties of normal and cancer cells and to an understanding of the factors that contribute to the phenotype of transformed cells.

Recently, Dr. Pastan and his colleague, Dr. Mark Willingham, have been investigating how hormones, plasma proteins and viruses enter cells by receptor-mediated endocytosis. They have identified and characterized an organelle, the "receptosome", that transports these substances from the cell surface to the Golgi apparatus.

In 1973, he delivered the G. Burroughs Mider Lecture at NIH. He was chairman of the Gordon Conference on Cell Adhesion, Recognition and Movement in 1981, and has held various lectureships. Dr. Pastan graduated from Tufts Medical School in 1957.

Dr. Paul was recognized for his achievements in the field of cellular immunology. He has directed a broad research program aimed at achieving a better understanding of the activation and specificity of two classes of white blood cells—T cells (thymus-derived) and B cells (bone marrow-derived).

He and his laboratory group have shown that proteins coded for the major histocompatibility gene complex (MHC) are critically important in the activation of T cells. The MHC are a group of genes which, by their product, regulate a variety of immune processes.

The findings from work done on the regulation of the proliferation of mouse and guinea pig T cells have provided primary tools for studying the function of the immune response (IR) gene.

One of the most important discoveries made by Dr. Paul and his colleagues has been that antibodies directed at gene products of the MHC inhibit antigen-induced T cell proliferation. T cells both help and suppress immune responses.

Recently, Dr. Paul has shifted his research focus to B cells, whose primary function is the production of antibodies. Although the chemistry and molecular genetics of their products are well known, understanding their functional heterogeneity and activation still is limited.

He and his colleagues are now studying the factors controlling the growth and proliferation of B cells and in the development of technology for cloning B cells. Cloning will provide populations of identical antigen specific B cells required to study antigen-induced B cell activation.

Among Dr. Paul's awards is the Texas Instruments Foundation 1979 Founders' Prize, given for outstanding achievements in the fields of physical, health, and management sciences, as well as in

engineering and mathematics.

Italian born and trained physician Dr. Erminio Costa was also elected to the academy this year. Dr. Costa is credited with demonstrating during the early 1960's the importance of neurotransmitter turnover rates in understanding neuronal function.

More recently, he proposed that anti-anxiety drugs act by facilitating inhibitory brain mechanisms, and that receptors function as supramolecular entities where transmitters and cotransmitters act to assure synaptic plasticity.

Editor of the journal *Neuropharmacology* for more than two decades, he has also written over 500 articles, most of which deal with the chemistry of the human brain.

His laboratory, which is located in the Intramural Research Program's Division of Special Mental Health Research at St. Elizabeths Hospital—has become a training center for neuroscientists from every continent. At least 150 researchers from 32 countries have studied with Dr. Costa.

A U.S. citizen since 1961, Dr. Costa has served as deputy chief and section head of the then National Heart Institute's Laboratory of Clinical Pharmacology (1960-65), and as associate professor of pharmacology at Columbia University for 3 years prior to joining NIMH.

Last year, NIH investigators Drs. Igor B. Dawid, Michael Potter, both of NCI, and Dr. Thressa C. Stadtman, NHLBI, were elected to the NAS. □

## Dental Bonding Techniques Have Many Diverse Uses

A variety of dental treatments for children and adults to improve the appearance of teeth and protect against decay are becoming increasingly popular.

Bonding techniques—also known as acid etch techniques—involve acid conditioning of the tooth surface to increase the strength of the bond between tooth enamel and the newly developed resins which are applied in certain dental treatments.

### Etching Techniques Essential

Acid etch techniques have been widely used in dentistry for many years, and are now essential for treatments such as sealing pits and fissures on chewing surfaces of children's teeth, repairing fractured teeth, placing plastic veneers over discolored teeth, splinting teeth, temporarily replacing missing teeth, and attaching orthodontic brackets to teeth.

One of the first uses of bonding techniques was in the application of decay-preventing sealants on the chewing surfaces of children's teeth.

It is especially important to prevent decay both in the temporary primary molars which erupt around age 2 and in the first permanent molars (6-year molars), because these molars help determine the position of other teeth.

Adhesive sealants are applied by a dentist to the teeth chewing surfaces to seal

vulnerable pits and fissures, or grooves. The plastic films act as a physical barrier against the accumulation of decay-causing food, debris, and bacteria in grooves of the molar teeth.

As cavity-preventive agents, sealants supplement the well-known beneficial effects of fluoride on the smooth surfaces of teeth, and can help reduce the number of cavities in children's teeth.

Scientists at the National Institute of Dental Research point out that the application of sealants to the teeth is a good introduction to dentistry for children. It is painless, requires no drilling, and takes a small amount of time.

### Surfaces Cleaned First

First, the chewing surfaces of molars and premolars are cleaned. Then the teeth are etched with a mild acid to remove plaque and other surface material, and to cause the enamel to become more porous. The porous surface allows a strong adhesive bond to form between the enamel and the resins.

When this step is completed, the teeth are rinsed and thoroughly dried, and the sealant is applied to the teeth. The protective films usually remain in place for several years, and are easily replaceable should they be lost. □



In a ceremony at NIEHS, executive officer Paul G. Waugaman was presented a plaque by Dr. Tyrone Baines, vice chancellor and director of North Carolina Central University's public administration program. The plaque recognizes the Institute's efforts to place students in the NCCU undergraduate degree program in suitable training and internship positions. The Institute has made student employee positions available to those who are required to work in public service jobs before obtaining a bachelor's degree.

Over the years, the National Institutes of Health has supported 78 individuals who have received the Nobel prize in medicine, chemistry, or physics. □

## Stable Isotopes Used Successfully 'in vivo' For Assessing Enzymes, Metabolism

Investigators at the Children's Nutrition Research Center, department of pediatrics, Baylor College of Medicine in Houston, report the successful use of stable isotopes as a noninvasive procedure for assessing enzyme levels *in vivo* and for a variety of other metabolic studies.

Dr. Peter D. Klein, and colleagues, supported by the National Institute of Arthritis, Diabetes, and Digestive and Kidney Diseases—in collaboration with research scientists at other institutions—have used stable isotopes to test for pancreatic function, intestinal bacterial overgrowth, liver function, fat and protein malabsorption, carbohydrate utilization, and determination of total body water.

Because these naturally occurring, heavy isotopes are nonradioactive, they offer significant advantages to clinicians in obtaining quantitative information, for example, about the nutritional requirements of pregnant women and of children as fetuses, newborns, weanlings, and youngsters.

Stable isotopes of hydrogen, carbon, nitrogen, and oxygen can be distinguished by their slightly heavier nuclei, which do not change the chemical behavior of the isotopes, but do allow their quantitation by mass spectrometry.

Ingestion of isotopically labeled foodstuffs permits highly sensitive, precise, and extended kinetic measurements of metabolic processes. Only small quantities of an isotopically labeled foodstuff need be ingested, making the procedure both cost-effective and noninvasive.

The key to the procedure, according to Dr. Klein, is the use of mass spectrometry to measure the proportion of heavy to light isotopes of the same element in expired air, urine or fecal samples. The rate at which an isotope label appears in the collected samples reflects the presence or absence of a key enzyme.

In addition, interval measurements can be used to estimate the amount of enzymatic activity present. One drawback is that the procedure requires use of an instrument that is seldom located in medical centers. However, the collection of breath samples is simple and inexpensive and these samples can be shipped to a central facility for analysis.

Dr. Klein and his colleagues have made total body water measurements with the  $H_2^{18}O$  isotope to determine body compo-

sition in nutrition studies. In the past, water-soluble tracers such as antipyrine or urea were used, but were not accurate because the tracers either were bound to proteins, rapidly metabolized and excreted, or incompletely distributed throughout the body.

### Tritium Involves Radiation Hazard

Tracers labeled with tritium involve a radiation hazard and cannot be used readily in children and pregnant women, while deuterium tracers involve a tedious and time-consuming analysis.

The accurate and rapid determination of total body water, recently validated in Dr. Klein's laboratory, is already proving valuable in many clinical situations such as neonatology and the assessment of body composition changes during recovery from malnutrition.

These measurements should also prove useful in assessing fluid status in patients with heart failure, renal failure, or severe burns.

In other studies, Dr. Klein and his colleagues have measured the rate at which carbohydrate is absorbed and metabolized after ingestion of foodstuffs isotopically enriched in  $^{13}C$ . They have also used triolein labeled with  $^{13}C$  to diagnose fat malabsorption.

If this fat is digested normally, exhaled carbon dioxide is highly labeled with  $^{13}C$ . Fat malabsorption is indicated by a low level of  $^{13}C$  in the breath. In this case, a second breath test, administered after ingestion of  $^{13}C$ -labeled trioctanoil, indicates when pancreatic insufficiency is involved.

The  $^{13}C$  breath analysis test has significant advantages over current methods which require analysis of stool samples. Breath analysis is easier to carry out, can be performed repeatedly without danger of radiation exposure, and can be performed on an outpatient basis in a few hours. These tests have particular potential for improving the quality of diagnostic procedures for infants, children, and pregnant women.

Clinical testing of the  $^{13}C$  breath analysis technique has recently begun, but several years of research—as well as fulfillment of FDA requirements for new drug application status—are needed before the test will be ready for routine clinical use. □

## Nurses Recognized By Congress and State

May 6 was designated National Recognition Day for Nurses by a joint resolution of the U.S. Congress. The resolution recognizes nurses' "contributions to the health care of our nation's citizens" and calls attention to the technical skill of nurses as well as "the comfort, solace, and education" they provide to those entrusted in their care.

The State of Maryland has also incorporated this national recognition day and the birth date of Florence Nightingale (May 12) into a Maryland Nurses Week to be observed May 6-12.

Governor Harry Hughes' proclamation calls Maryland Nurses Week "a tribute to the nursing professionals in the State of Maryland who provide care for citizens of all ages, sex, and creeds in all health care settings."

### Show Appreciation of Nurses

No formal activities at the Clinical Center are planned in connection with these dates. Rena Murtha, R.N., associate director of the Clinical Center for Nursing, calls upon NIH employees and visitors to take this opportunity to show their appreciation for the skill and dedication of nurses.

"In particular at the Clinical Center," she says, "it is important to recognize the contributions nurses are making to the conduct and quality of clinical research." —

## NCI Epidemiologist Receives Authorship Award

Dr. Shelia K. Hoar, an epidemiologist in the NCI Environmental Epidemiology Branch, received the Merit in Authorship Award from the American Occupational Medical Association at its annual meeting in April in Toronto, Canada.

Dr. Hoar, who specializes in occupational studies, was presented the award as principal author of An Occupation and Exposure Linkage System for the Study of Occupational Carcinogens, published in the association's *Journal of Occupational Medicine* in November 1980.

The award for excellence in research reporting is conferred annually for one research paper published in the journal. Co-authors of the paper were Drs. Debra T. Silverman, an epidemiologist in NCI's Biometry Branch, Field Studies and Statistics Program; Alan S. Morrison, Harvard School of Public Health; and Philip Cole, University of Alabama.

The paper describes a system of occupation and exposure linkage that was developed by Dr. Hoar as a tool for epidemiologic analyses of cancer risks in the workplace.

Dr. Hoar's linkage system makes it possible to place in a single exposure category individuals with different occupations whose employment histories suggest exposure to the same agent. This permits analyses based on specific exposures, rather than on industry and tasks. □

## 'How You Choose Is How You Lose'

The Diet Workshop will start a new 8-week program beginning May 24. The weekly meetings will be held from 11:30 a.m. to 12:30 p.m. in Bldg. 31, Rm. 11A-10. The cost is \$39.50 for all eight sessions. Over 60 people enrolled in the last 8-week session. Members lost over 100 lbs. in 4 weeks.

The weight loss plan, How You Choose

Is How You Lose, is based on a core diet of seven food categories from which dieters can choose what they like to eat. The flexi-diet is part of a four-point program for weight control involving diet, exercise, behavior modification and sound nutrition.

For more information, contact R&W, Bldg. 31, Rm. 1A-17, or call Diet Workshop, 587-3438. □

# BUREAU

(Continued from Page 1)

program in arthritis and related rheumatic diseases.

These include rheumatoid arthritis, osteoarthritis, lupus, and juvenile arthritis; bone diseases and disorders such as osteoporosis, and Paget's disease; and skin diseases such as psoriasis, epidermolysis bullosa, ichthyosis, and vitiligo.

The Division of Diabetes, Endocrinology, and Metabolic Diseases, led by acting associate director Dr. Ernest W. Johnson, will coordinate the entire Federal research effort in diabetes.

Studies of insulin synthesis, storage and release, and the means by which the disease and its potentially life-threatening complications can be prevented or controlled, receive substantial support from the diabetes division. This division also supports basic and clinical research in endocrinology and metabolic diseases, and on cystic fibrosis.

The Division of Digestive Diseases and Nutrition, headed by associate director Dr. Harold P. Roth, is the leading Federal program for the government's support of research in digestive diseases.

These include ulcers, diverticulitis, infectious diarrhea, ileitis or Crohn's disease, colitis, gallstones, liver diseases such as cirrhosis, as well as nutritional disorders such as obesity. An estimated 20 million Americans suffer from chronic digestive disorders.

The Division of Kidney, Urologic and Hematologic Diseases, headed by Nancy B. Cummings, is responsible for a national research program in prevention of end-stage renal disease and improved methods of treatment including kidney dialysis and transplantation.

Studies of glomerulonephritis, a disease estimated to cause between 50 and 70 percent of end-stage renal disease, and other diseases leading to chronic kidney disease, such as diabetic nephropathy, lupus nephritis, and polycystic renal disease, are supported by the new division.

## Intramural Research Division Formed

A Division of Intramural Research has also been established at NIADDK. Directed by Dr. Joseph E. Rall, who also serves as NIH Acting Deputy Director for Science, this division conducts clinical and basic research in arthritis, diabetes, digestive diseases, genetic abnormalities, and blood diseases such as hemophilia.

Research on the mathematical and theoretical aspects of biological problems, and basic research in chemistry, biology, pathology, nutrition and endocrinology, pharmacology, physics, and metabolism are major research efforts of NIADDK intramural scientists.

The Division of Extramural Activities, headed by Dr. George T. Brooks, is responsible for administering the NIADDK program for awarding grants and contracts and provides scientific merit review of applications for special grant programs and research contract proposals. □

## Six Minority Biomedical Research Student Scientists Win Excellence Awards at 1982 10th Annual Symposium

Six awards of excellence for research and presentation were given to student scientists at the recent 10th Annual Minority Biomedical Research Support Symposium held in Albuquerque, N.Mex.

The meeting, an activity of the Division of Research Resources-funded Minority Biomedical Research Support Program, included formal presentations and poster sessions, an exhibit area, and a review of the impact of the MBRS program after its first 10 years.

Judged by a select committee of scientists headed by Acting DRR Director Dr. James F. O'Donnell, the awards of \$500 each were donated by the Beckman Instrument Company and the Foundation for the Promotion of Advanced Studies in Albuquerque.

The award winners were Eduardo Acosta of California State University at Los Angeles, Bobby Burkes of Atlanta University Center, Sergio Coronado of the University of Texas at El Paso, Rosilyn Howard of Florida A&M University, Joe Reyes of San Jose State University, and Sharon O. Williams of Meharry Medical College.



A Hawaiian student scientist is interviewed for TV in front of the University of Hawaii at Manoa poster exhibit.

Poster sessions showcasing student research protocols create animated discussions during the MBRS Symposium.



The Savannah State College poster on production of antibodies is studied intently by a faculty scientist.

Stephannie Donaldson, an MBRS participant from Norfolk State University, explains her research.



Scanning microscopy is the subject of Imani Washington's research at Tuskegee Institute.



Dr. James Henderson, symposium keynote, gives details of NIH's minority research program for Albuquerque TV viewing.

## Rhodes Cancer Lecture Delivered by Dr. Aaronson

Dr. Stuart A. Aaronson, chief of the NCI Laboratory of Cellular and Molecular Biology, delivered the Rhoads Memorial Award Lecture Apr. 30 at the 73rd annual meeting of the American Association for Cancer Research in St. Louis.

This award was established to honor Dr. Cornelius P. Rhoads, founder and first director of the Sloan-Kettering Institute for Cancer Research. It gives recognition to an individual on the basis of meritorious achievement in cancer research.



Dr. Aaronson

Dr. Aaronson spoke on the Unique Aspects of the Interactions of Retroviruses With Vertebrate Cells. The talk focused on the use of RNA tumor viruses to study the processes involved in malignant transformation and the application of this body of knowledge to studies of naturally occurring tumors of humans.

Genes called *onc* genes, which are required for viral transforming functions in certain animal model systems, have arisen from cellular genes that are well-conserved in evolution, suggesting that they may possess important biologic functions in

normal cells. These genes also are present within human DNA, and scientists now have mapped several to specific human chromosomes.

The first biologically active human transforming gene has recently been molecularly cloned from human bladder carcinoma cell lines by three groups of investigators, including investigators within Dr. Aaronson's laboratory. This gene has been shown to be related to one of the well-studied animal viral *onc* genes.

A University of California graduate at Berkeley, Dr. Aaronson received the M.S. degree in biochemistry in 1965, and the M.D. degree from the University of California/San Francisco School of Medicine in 1966. He interned at Moffitt Hospital in San Francisco.

In 1967, he joined the NCI as a staff associate in the Viral Carcinogenesis Branch. Later, Dr. Aaronson became a senior staff fellow there in 1969, and was named head of the molecular biology section in 1970. In 1977, he became chief of the Laboratory of Cellular and Molecular Biology.

He serves on the editorial boards of the *Journal of the National Cancer Institute*, the *International Journal of Cancer*, *Cancer Research*, and *Biochimica et Biophysica Acta*.

The text of his award lecture is available from the Office of Cancer Communications, 496-6641. □

## Final Beta-Blocker Trial Results Published

Final results of the NHLBI's Beta-Blocker Heart Attack Trial (BHAT) have been published in the Mar. 26 issue of *JAMA*. Preliminary results of the trial were published in early November 1981, and indicated that treatment of heart attack patients with propranolol can reduce mortality from recurrent heart attacks.

These latest, more detailed results verify the preliminary findings that heart attack patients given propranolol had a 26 percent lower mortality rate than did similar patients who were given placebo during the average followup period of 25 months. Benefits of propranolol held true no matter what the patient's age or site of infarction.

The trial involved 32 clinical centers and one coordinating center in the U.S. and Canada. Patients selected were between the ages of 30 and 69 years and had experienced a documented myocardial infarction.

In all, 1,916 patients were enrolled into the propranolol group and 1,921 patients were randomized into the placebo group. Five to 21 days after their heart attack, patients were started on a treatment regimen of 180 to 240 mg of propranolol daily divided into three doses. The placebo also divided into three daily doses.

After an average followup of 25.1 months, 138 (7.2 percent) of the propranolol-treated group and 188 (9.8 percent) of the placebo-treated group had died. Most of the deaths were related to cardiovascular disease; only 11 of the pro-

pranolol group and 17 of the placebo group died of causes not related to cardiovascular problems.

Propranolol was found to have reduced mortality from arteriosclerotic heart disease (6.2 percent among the propranolol group vs. 8.5 percent among the placebo group) as well as sudden death from cardiovascular disease (3.3 percent of the propranolol patients vs. 4.6 percent of the placebo patients).

Differences in mortality rates for all cardiovascular causes proved statistically significant between the two groups of patients. Whether the patients had had a single uncomplicated myocardial infarction, an MI with complications, or had had more than one myocardial infarction, propranolol proved to be efficacious.

In conclusion, the research group stated that, "based on the BHAT results, in conjunction with those of studies reported previously, the investigators recommend the use of propranolol for at least 3 years in patients with no contraindications to beta blockade who have had a recent MI." □

## Dr. DeVita To Receive Honorary Science Degree

Dr. Vincent J. DeVita, Jr., Director of the National Cancer Institute, will receive an honorary doctor of science degree from his alma mater, The College of William and Mary, at its commencement exercises on May 16. □

## Scientists Create/Transmit Genetic Instructions

Scientists at the University of California at San Francisco, led by Dr. Yuet Wai Kan, recently reported that they have been able to create and transmit artificial genetic instructions to correct the behavior of a defective human gene that causes an incurable and often fatal blood disease—beta thalassemia.

Dr. Kan and his group are supported by the National Institute of Arthritis, Diabetes, and Digestive and Kidney Diseases.

Several years ago, Dr. Kan's group discovered that some cases of beta thalassemia were caused by an error in gene material that normally gives instructions for making one component of hemoglobin, an important substance in the blood. The genetic mistake caused a "stop" order on that component.

Now, using DNA recombinant techniques, the scientists created a gene that was capable of sending orders to tell a cell to ignore that "stop" signal and to continue to make the blood substance.

To test the gene they created, scientists put the defective gene from a human thalassemia patient into frog egg cells together with their artificially made correction. They found that the "stop" order was overruled and the cells began to produce correct substances.

Scientists have cautioned that it might take 2 more years to learn whether the technique would be safe and useful medically in patients. But, the research is seen as an important advance in the science of hereditary disease and a step toward prevention of such disorders. The report was published in the Apr. 8 issue of *Nature*. □



Dr. Henry G. Roscoe has been appointed deputy director of the Division of Extramural Affairs, NHLBI, after serving as chief of the Referral Branch, DRG, since March 1979. After receiving his Ph.D. in biochemistry from Cornell University in 1961, he was employed as a senior research scientist for Lederle Laboratories where he conducted research in lipid metabolism and atherosclerosis. In 1972, Dr. Roscoe became an NIH grants associate, and subsequently served as a health scientist administrator with the NINCDs and NHLBI.

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