Dr. D. Bernard Amos Wins 3M Life Sciences Award

Dr. D. Bernard Amos, an immunologist and long-term grantee of the National Institute of Allergy and Infectious Diseases, has been named winner of the “3M Life Sciences Award.” He was honored for his research efforts in describing and clarifying the major histocompatibility complex, a system of genes which controls certain aspects of immune function in man.

The $10,000 award, sponsored and supported by the Minnesota Mining and Manufacturing Company and administered by the Federation of American Societies for Experimental Biology, will be presented in April to Dr. Amos, James B. Duke professor of immunology and experimental surgery at Duke University Medical Center in Durham.

Dr. Amos is also a grantee of the National Cancer Institute and the National Institute of General Medical Sciences.

The results of Dr. Amos’ research have had a major impact on the success of human organ and tissue transplantation.

Herpes Virus Recurrence Prevented Successfully by New Drug Treatment

A research group at the National Institute of Allergy and Infectious Diseases has used acyclovir to prevent recurrence of herpes virus infection. The preliminary work, as reported by Dr. Stephen Straus, chief of medical virology, has been published in the March issue of the Annals of Internal Medicine.

The investigators prevented the recurrence of severe, mucocutaneous herpes simplex virus in five patients with defective cell-mediated immunity. Four had genital lesions and one had facial lesions. Using intravenous and oral acyclovir (ACV) supplied by the Burroughs-Wellcome Corporation, Dr. Straus was able to treat successfully over 25 episodes of severe chronic and recurrent herpes simplex virus infection in the five patients.

The ACV rapidly inhibited viral shedding, was well tolerated by the patients and permitted the complete healing of lesions. As expected, the ACV did not prevent latent recurrences once treatment was discontinued. Also, once discontinued, it did not postpone the onset of recurrent symptoms past the interval seen between naturally occurring episodes.

However, using long courses of oral ACV at lower than treatment level doses, Dr. Straus was able to suppress symptomatic recurrences of infection for as long as administration of the drug continued (up to 65 days).

Side effects were limited to redness and irritation at the intravenous puncture site in two patients; several bouts of diarrhea and nausea in one patient; a mild tremor in one patient; a twofold rise in one patient’s liver enzyme levels, which returned to normal within 1 week after completion of treatment; and, a temporary drop in one patient’s white blood count, which also returned to normal once ACV was discontinued.

The research group monitored the patients frequently for the possible development of drug-resistant virus strains and found none. However, Dr. Straus emphasized in the Annals article, “repeated ACV treatments favor selection of drug-resistant virus strains.”

Early laboratory studies suggest the most likely form of resistant virus is associated with a significantly diminished capacity by the virus to establish itself in the latent form in the neural system. Nonetheless, the potential risk exists of emergence of ACV-resistant herpes simplex virus.

Thus, Dr. Straus suggests that chronic therapy might be preferable to intermittent therapy for individuals who suffer frequent, severe recurrences. Virus then would not have the opportunity to repeatedly reactivate and be exposed to suboptimal drug concentrations.

Conversely, Dr. Straus has not endorsed long-term therapy for most individuals: “It

(See HERPES VIRUS, Page 8)

Siamese Twin Operation A Success at Hopkins

Dr. Alex Haller, pediatric surgeon-in-chief of Johns Hopkins Children’s Medical and Surgical Center, and a user of an NIH-supported facility, led a team of surgeons in the task of successfully separating Siamese twins on Mar. 6.

Only 22 other sets of Siamese twins have ever been separated, according to the surgeons. Dr. Haller investigates the surgical treatment of other congenital anomalies on the Division of Research Resources-funded pediatric clinical research center at Johns Hopkins.
USDA Offers Many Courses; Office Technology to Birdwatching

The spring schedule of classes at the Graduate School, USDA, is now available. For a copy, call 447-4419.

Among the many courses offered are concepts of office technology; introduction to information technology; the systems approach to training; public speaking; microcomputers; photography; journalism; personnel administration; and birdwatching.

In-person registration runs Mar. 29 to Apr. 3 at the South Bldg., Wing 4, USDA, 14th and Independence Ave., S.W., Washington, D.C.

Training Tips

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

Office Skills

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<td>Files Maintenance and Improvement</td>
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<td>Effective English</td>
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<td>Communication Skills</td>
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<td>Human Relations Workshop</td>
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To learn more about these and other courses in office and communication skills, contact the Training Assistance Branch, DPM, 496-2146.

Correction

Due to a printer’s error, the photo of Dr. Jane E. Henney, newly appointed deputy director of the National Cancer Institute, was placed in the wrong position on page 3 of the Mar. 2 issue of The NIH Record.

Join the Racquet!

The NIH Tennis Club will hold its first meeting of the season on Wednesday, Mar. 31, at 11:30 a.m., in Bldg. 31, Conf. Rm. 8.

Announcements will be made regarding membership applications, team tennis, flight tennis, singles ladder and tennis lessons.

Members play on four courts located behind Bldg. 41.

Teams, selected by past performance, will play on Sundays. Flight tennis, classifying skill levels and rated in accordance with the National Tennis Rating Program, will play on Tuesday and Thursday evenings.

Singles ladder, open to all levels, may play on any day. Lessons will be given on Wednesday evenings.

A tennis tournament is also being planned during the summer and will be directed by Marilyn Berman.

All players are welcome to attend the meeting. For further information, call Rick Hargett, 496-4887.

MIT Professor Will Speak

Jonathan King, professor of biology, Massachusetts Institute of Technology, will present a lecture entitled Public Funding for Biomedical Research on Monday, Mar. 29, at 1 p.m., in Bldg. 1, Wilson Hall. The lecture is sponsored by the Foundation for Advanced Education in the Sciences.

If there were no difficulties, there would be no triumphs.—B. C. Forbes

Hemoglobin Workshop

Scheduled for March 22-23

A Workshop on Hemoglobin Assembly and Catabolism will be held on Mar. 22-23. It is being organized by Drs. H. Franklin Bunn, Fogarty scholar-in-residence, and Alan N. Schechter, National Institute of Arthritis, Diabetes, and Digestive and Kidney Diseases.

The basic biochemistry of the formation and breakdown of hemoglobin and its relevance to human disorders such as thalassemia and malaria will be considered.

The workshop is scheduled for Conf. Rm. 10, Bldg. 31. Preregistration is necessary and can be done by contacting Nancy Shapiro, FIC, 496-2517.

Teams Being Sought

For NIH Institute Relay Race

Five-member teams are now being sought for the Fifth NIH Institute Relay that will be run at noon on Wednesday, May 26. Applications may be obtained at the R&W Activities Desk beginning Apr. 19. This year a nominal fee of $2.50 per team is being requested to defray event costs.

The teams may be all-male, all-female, or mixed. Each runner will run a 1/2-mile course around Bldg. 1. Last year, 78 teams and over 350 runners of all abilities participated in the annual festival and carnival of spring running.

The NIH Director’s Award will be presented to the team finishing first, and to the first-place, all-female team.

Applications will be limited to the first 60 teams and must be submitted by May 21. Relay organizers say that no exceptions will be made.

Teams may be formed from the same Bldg/D or branch. For more information, contact Dr. Peter Pentechev, 496-3285.

Twenty-one of this year’s 40 Westinghouse science scholarship winners spent a day in early March at NIH visiting different laboratories and meeting with scientists. The students, selected from 13,259 applicants from around the U.S., were hosted by researchers from various Institutes. The senior high pupils’ visit to NIH was part of the 41st annual Science Talent Search activities held in Washington this month. One of the finalists was Stephanie Ann Telesetsky, a 16-year-old Stone Ridge High student, who began her award-winning research project on E. coli last summer at NIH where she worked as a summer employee in the Laboratory of Biochemical Pharmacology, NIADDK.
Columbia’s Dr. Spiegelman Wins Italian Research Award

Dr. Sol Spiegelman, director of Columbia University’s Institute of Cancer Research and a longtime recipient of research funds from the National Cancer Institute, recently was awarded the 1981 Antonio Feltrinelli International Prize in Biological Sciences. The prize, called by some the Italian Nobel, is worth 100 million lire (or about $83,000) and is administered by the Accademia Nazionale del Lincei for the Feltrinelli Foundation.

The award citation notes the singular contribution of Dr. Spiegelman in the field of molecular biology. It credits him with studying “almost all functional aspects of DNA and RNA and of discovering phenomena of central importance in molecular biology.”

He is perhaps best known for his discovery of the technique of RNA-DNA filter hybridization—the ability of DNA to seek out and pair with its homologous RNA. In the 1960’s this technique revolutionized the field of molecular biology.

Research Aided Others

Some have estimated that 90 percent of the key experiments of that decade depended wholly or in part on the use of RNA-DNA hybridization.

Among questions that it helped answer was how the information encoded in DNA is translated into protein. The technique played an important role leading to the recombinant DNA technology of today.

One of the systems Dr. Spiegelman worked with in the 1960’s was the QB-phage, an RNA virus that infects bacteria. Through a series of experiments, he showed how the virus duplicates itself. He isolated the enzyme that directs the synthesis of the virus’s genetic material and was the first scientist to be able to coax a nucleic acid into duplicating itself in a test tube.

Dr. Spiegelman’s current studies concern the function of viral genes and gene products in human cancer.

Prince Masahito Delivers Paper at US-Japan Conference in Hawaii

Prince Masahito, the younger son of the Emperor of Japan, delivered a scientific report at a conference on neural crest tumors in Hawaii, sponsored by the US-Japan Cooperative Cancer Research Program of the National Cancer Institute and the Japan Society for the Promotion of Sciences.

The conference, organized by Dr. Haruo Sugano of the Cancer Institute in Tokyo and Dr. Robert W. Miller of NCI, was held at the East-West Center in Honolulu on Mar. 1-2.

Frequency of Diseases Discussed

The purpose of this meeting was to draw on differences in disease occurrence or research experience in the 2 countries to develop new understanding of the wide array of tumors derived from or influenced by cells from the neural crest.

The prince, in the first report he has ever made at an international scientific meeting, described tumors of red, iridescent, or black pigment cells in 38 giant ornamental goldfish and 15 carp in a series of ponds maintained by hobbyists and others.

The tumors are markedly related to age. Toward the end of their lifespan, at 12 years, 60 percent of the fish are affected.

Other studies in Japan revealed that 30 percent of the fish were affected. In the United States, 60 percent of the fish were affected.

In the United States, the tumors are related to age. Toward the end of their lifespan, at 12 years, 60 percent of the fish are affected.

The research presented by Japan’s Prince Masahito follows the scientific tradition laid down by his father, the Emperor, who is a marine biologist. The prince conducts his investigations at the Cancer Institute in Tokyo.

Prince Masahito described his success in growing the pigment-producing cells in culture.

Lists Will Help

The Japanese are thought to be protected, to some extent, by their skin pigmentation from melanoma due to sunlight. Discussion at the conference indicated that this, the most easily ascertained of human neural-crest neoplasms, can be studied epidemiologically through data in citywide tumor-tissue registries in Hiroshima and Nagasaki, established in 1972 through funds provided by NCI.

Differences between the two countries in the frequency of melanoma in areas of the body protected from the sun could indicate dissimilarities in the development of the neural crest.

Other neural-crest tumors include neurofibromatosis, the multiple endocrine neoplasia syndromes types II and III, neuroblastoma, meningioma, and pheochromocytoma.

New understanding of the biologic basis for these tumors may come from study of bimational differences in their frequencies, or from relating syndromes in the human to the embryologic development of the neural crest, according to the conference.

Recently, the incoming and outgoing science attaches for China’s embassy in Washington, D.C., were honored at a Stone House luncheon given by the Fogarty International Center and the Office of International Health, HHS. The officials were honored for their efforts in supporting the burgeoning collaborative effort in science between NIH and counterpart institutions in China. Drs. Wu Yikang (l) and Xu Zhexianguang (r) were greeted by Dr. Claude J. M. Lenfant, FIC Director (standing next to a bust of former Congressman John E. Fogarty).

NOVA Looks at Aging

NOVA, the PBS science series will air a program entitled Aging: The Methuselah Syndrome, on Sunday, Mar. 28. The program will feature many NIA-supported scientists and a section filmed at the Baltimore Longitudinal Study of Aging at NIA’s Gerontology Research Center. PBS estimates that 5 to 10 million people watch.

The NIH Record

March 16, 1982
Foreign Gene Transfer Advance Accomplished By Two NICHD-Supported Research Teams

By Maureen Gardner

Through a carefully timed and delicate microscopic procedure, two separate research teams, supported in part by NICHD, have succeeded in transferring genes to mice from nonmice sources—a rabbit in one study, and a virus in the other.

For the first time in animals, transferred "foreign" genes not only worked properly, but also were passed on to offspring. The researchers' work may ultimately lead to treatment for some of the estimated 2,000 genetic disorders now considered incurable.

In both generations of mice, the foreign genes directed certain mouse cells to produce nonmice proteins that scientists could trace.

healthy, functioning gene that cures the disease.

The second requirement, that the working gene must be passed on to the animal's offspring, is equally important. Before human trials can begin, safety must be ensured through years of studies using many generations of animals that transmit foreign working genes to their offspring.

In addition, there is hope that someday people with certain genetic diseases will not only be cured themselves, but will pass on only healthy genes to their children.

Earlier gene transfer efforts by other groups were only partially successful. In some studies, transferred genes worked properly—but only in cell cultures, not animals; in other studies, foreign genes were transferred to animals and passed on to offspring—but did not work there. The recent success of the NICHD-supported teams is thought to be a result of the timing of the gene transfer process.

Working independently, both teams applied the same technique but used different donors for the nonmice genes. First to report success were scientists at Ohio University, led by Dr. Thomas Wagner. This group transferred to mice a rabbit gene that directed the production of beta-globin, a part of the oxygen-carrying molecule in rabbit blood cells.

In these studies, mice carrying foreign genes looked just like normal mice, but some of their tissues produced nonmice proteins that scientists could trace.

A hollow glass needle thinner than a human hair (at right) is used to inject nonmice genes into a fertilized mouse egg, magnified 1,200 times.

Soon afterwards, a team led by Dr. Ralph Brinster of the University of Pennsylvania and Dr. Richard Palmiter of the University of Washington announced their transfer to mice of a viral gene that directed the synthesis of an easily detectable enzyme called thymidine kinase.

In both studies, fertilized mouse egg cells were removed from mice just after mating. Ready for transfer were thousands of copies of rabbit or viral genes obtained through genetic engineering techniques. The transfer was timed to take place shortly after the egg and sperm had united, but before their genetic material combined.

Looking through a microscope, scientists used a hollow glass needle, thinner than a human hair, to inject as many as 20,000 copies of rabbit or viral genes into the part of the fertilized mouse egg containing the sperm's genetic material. Thus, when the egg accepted the mouse genes from the sperm, it was tricked into taking the foreign genes as well.

Many eggs prepared this way were then transferred to uteruses of mice who later gave birth, and some of the offspring carried the functioning nonmice genes. When these mice matured and were mated, some of their offspring, too, carried the genes.

Because the nonmice genes were incorporated into the developing animal's genetic makeup from the very start, before cell division began, they were passed on to all body cells simultaneously. This is an advantage for scientists wishing to explore how the genes operate in various tissues. It also explains why the genes could be inherited; they were ultimately passed on to the sperm or egg cells of the developing animal.

Researchers do not foresee that this technique will ever be used to inject genetic material into human egg cells. Instead, its success may pave the way for the development of techniques for transferring healthy genes to human tissues involved in genetic disease.

While some scientists feel that it is just a matter of time before gene therapy becomes a reality, others point to some basic questions that still must be answered, such as how a newly inserted gene would stay and work in the appropriate tissue. One point of general agreement is that should gene therapy prove possible, it would most likely be limited to treating hereditary diseases resulting from defects in a single gene.

Multigenic diseases, and our physical, mental, and emotional traits (which are influenced by vast arrays of genes) are considered beyond gene therapy's reach for the foreseeable future.

Gene transfer advances such as those accomplished by the NICHD grantees may speed the development of gene therapy techniques; however, ethical criteria would have to be met long before human trials could begin.

According to NIH scientists Drs. John C. Fletcher and W. French Anderson, animal studies should show in advance that the probable benefits outweigh the probable risks: there must be reasonable evidence that the new genes will work and will not cause harm.

Other applications of the NICHD grantee's work will most likely come sooner than gene therapy. The livestock industry may make use of the gene transfer techniques to create better breeds more quickly.

Another payoff from these studies should be a better understanding of how and why genes switch on and off, guiding countless cells as they differentiate into specialized tissues during development. By tracing foreign genes in experimental animals, scientists hope to begin unraveling the gene regulation mystery.
Study Finds Marijuana Health Hazards Justify ‘Serious National Concern’

Marijuana, the most widely used illicit drug in America, produces a variety of reversible, short-term health effects, according to a National Academy of Sciences Institute of Medicine report. The study was funded by NIH.

Of known and suspected health hazards, marijuana “justifies serious national concern” concluded the 22-member panel ofversible, short-term health effects, according to a National Academy of Sciences Institute of Medicine report. The study was funded by NIH.

They were commissioned to determine possible health hazards associated with marijuana use, to identify potential therapeutic uses, and to recommend promising research directions. The panel did not consider whether marijuana should be de-criminalized.

The report noted that short-term effects on behavior and learning may pose serious hazards for driving and school performance. However, they found no “conclusive evidence” that prolonged use causes permanent changes in the nervous system. The group did suggest that long-term marijuana smoking could lead to lung damage and cancer and raised questions about “worrisome,” but not definitive, findings on possible adverse reproductive effects.

The panel warned that the current amount of Federal financing, about $4 million annually, for marijuana studies has been diminished by inflation in recent years.

“Our major recommendation is that there be a greatly intensified and more comprehensive program of research into the effects of marijuana on the health of the American people,” the panel said.

Dr. Arnold S. Relman, committee chairman and editor of the New England Journal of Medicine, said, “We cannot rule out any risk to health in any area. Any prudent person looking at the facts would have to be worried about the long-term effects.”

Of particular concern, he noted, is the daily use of the drug by 1 in 14 high school seniors. That number has declined recently, partly because of increased recognition by students of possible health risks. Estimates suggest that about one-quarter of the entire American population has tried marijuana.

The findings of the 15-month study which, to date, is perhaps the most extensive independent review of the available scientific evidence on marijuana’s health effects include:

- Marijuana use impairs motor coordination, posing a “substantial risk” for anyone attempting to drive. These effects could last at least 4 to 8 hours after the actual “high.”
- The drug interferes with short-term memory and may produce effects ranging from euphoria to delirium. The group found it difficult to determine whether marijuana use was a cause or effect of the so-called “amotivational syndrome,” which produces apathy and poor school or work performance.
- Marijuana causes changes in the heart and circulation that could threaten patients with these problems, but not normal individuals.
- There is a “strong possibility” that prolonged, heavy smoking of marijuana will lead to cancers of the respiratory tract, similar to those caused by tobacco.
- A chemical in marijuana is known to lower the number and movement of sperm in men, but the effect on fertility is unknown. The panel expressed concern about “young girls using the drug” because of animal research showing effects on ovulation and reproductive hormones.
- There is no unequivocal evidence as to whether marijuana affects the immune system.
- Marijuana and its by-products can remain in the body for long periods of time, even months, with unknown but possibly “subtle” effects.
- Marijuana has a broad range of psychological and biological effects, some of which, at least under certain conditions, are harmful to human health. Unfortunately, the available information does not tell us how serious this risk may be,” the institute panel report said.

The new review found that marijuana may be potentially beneficial in the treatment of glaucoma, the nausea and vomiting brought on by cancer chemotherapy, asthma, and possible certain types of epileptic seizures, spastic disorders and other nervous system diseases.

As to whether marijuana use is either safe or dangerous, Dr. Relman said, “Our committee found the present truth of the matter to lie somewhere in between the two extremes, so we give no comfort to those with strong positions on either side of the argument.”

Among many research recommendations, the committee called for increased emphasis on studies in human beings and other primates, more information on the metabolism and biological effects of the various marijuana chemical compounds, and long-term studies on the behavioral and biological consequences of using the drug.
Dr. K. J. Kwon-Chung
Honored for Mycology Work

Dr. K. J. Kwon-Chung, research microbiologist with the National Institute of Allergy and Infectious Diseases and authority on pathogenic fungi, received international recognition in February.


The award, which honors outstanding scientists in the field of mycology, is presented once every 4 years. The awardees each received medals and $1,000 honorarium.

During the Congress, she was elected the society's vice president.

Dr. Kwon-Chung's initial discovery in 1970 of the sexual reproduction cycle of Histoplasma capsulatum, the fungus that causes histoplasmosis, gave new impetus to the study of a disease that was once considered rare in this country but is now believed to afflict 30 million Americans.

Histoplasmosis, which often mimics other respiratory conditions including tuberculosis, is acquired by inhalation of spores released from contaminated soil found around chicken coops, caves, bat roosts.

A chain of discoveries by the NIAID scientist in 1975 led to the reclassification of the fungus, Cryptococcus neoformans, the organism that causes cryptococcosis. This disease initiates primarily in the lungs but usually spreads to the central nervous system causing Cryptococcal meningitis. If untreated, Cryptococcal meningitis is almost always fatal, and even with treatment maintains a 25 percent fatality rate.

Dr. Kwon-Chung discovered a sexual reproductive cycle of C. neoformans previously considered to reproduce only asexually as a budding single celled yeast, removing it from the category of Fungi Imperfecti and placing it taxonomically with the Basidiomycetes.

This group includes highly evolved fungi, many of which cause plant disease. Her current research efforts are concentrated on finding the virulence factors of the C. neoformans.

Former Presidential Staffer Named NIH Library Chief

Carolyn P. Brown has been appointed chief of the Library Branch, Division of Research Services, where she will be in charge of the NIH Library.

The position has been vacant since Ruth C. Smith retired last December. Since then, John O. Smart, DRS executive officer, has been acting branch chief.

Mrs. Brown comes to NIH from the Executive Office of the President, where she was director of the Information Management and Services Division.

Her appointment is a return to NIH. Previously, she was head of the Division of Computer Research and Technology Library from 1968 to 1972. She subsequently served as chief librarian, National Naval Medical Center; chief of the Information Services Section, National Bureau of Standards Library; and chief of the User Services Branch of the National Oceanic and Atmospheric Administration Library.

Mrs. Brown is active in the Special Libraries Association, the American Society for Information Science, and the American Library Association.

Mrs. Brown has a special interest in on-line bibliographic retrieval systems.

A graduate of the University of Mississippi with an M.A. in English, she also possesses a master's in library science from the University of Maryland.

Announcing Mrs. Brown's appointment, Dr. Joe R. Held, DRS Director, said, "Her experience and qualifications assure the NIH research community of a well-planned and effective biomedical and technical library service, not only as the principal literature resource for investigators, but as a support for all staff and programs."

Student Paper Competition Announced

A second annual student paper competition has been announced for the Symposium on Computer Applications in Medical Care. The 10 finalists' papers will be presented at the Sixth Annual Symposium, Oct. 3 to Nov. 2, in Washington, D.C.

Graduate and undergraduate students currently enrolled in a degree-granting program, as well as students enrolled in an accredited medical speciality training program, are eligible to enter.

For further information, call Janice Eldridge, 676-6928.

In the midst of compassion, we feel within us a kind of bitter-sweet pricking of malicious delight in the misfortune of others.

—Montaigne—
G. Slate Uses Easter Seals

This year's Easter Seal Telethon will be shown locally on WJLA-TV channel 7 on Mar. 27-28. It will also mark the 10th year that George Slate, NIH center supervisor, Career Education Institute, Career Development Branch, OPM, has volunteered his time to a nonprofit local organization which directly benefits from such fundraising endeavors.

Recently, Mr. Slate was elected as a vice president of the board of trustees for the Treatment Centers of The Montgomery Society for Crippled Children and Adults, Inc.

Many Helped Last Year

The 32-year-old organization paid for the professional staff and also provided the medical equipment so that over 35,000 treatments could be obtained by 1,365 disabled individuals last year.

Recently, the society's board of trustees announced plans for the construction of a 30,000 square-foot, $2.5 million facility to be built at the Shady Grove Medical Park. It is expected to be completed by 1985, and will have facilities for speech and language therapy, audiological services and physical and occupational therapies.

A person can save time, expense and embarrassment by doing a job slowly and thoroughly, rather than by doing it incorrectly at blinding speed.—Gordon Jerome

Diet Workshops at NIH Start March 22

The Diet Workshop will be conducting weekly meetings starting Monday, Mar. 22, 1982 from 12:30 to 1:30 p.m., in Rm. 11A-10, Bldg. 31. The cost of eight sessions is $39.50.

How You Choose Is How You Lose is the theme of a new concept for weight loss that allows dieters to choose foods they like to eat. The new plan is based on a core diet of seven food categories from which to choose. The flexi-diet will be in regular Diet Workshop group meetings.

The flexi-diet is one aspect of Diet Workshop's four-point approach to total weight control. The approach involves diet, behavior modification, exercise, and sound nutrition. Emphasis is placed on permanent weight control.

Members are encouraged to:
- Become aware of his/her eating behavior problems, and set reasonable goals for behavior change;
- Use the nutritionally balanced diet plan as a skeletal structure on which to embroider extra food choices;
- Commit themselves to a regular program of increased physical activity;
- Be aware of their weight, their daily food intake and the caloric value of extra food they choose; and,
- Attend their weekly group meetings. At no extra charge, members may attend as many meetings per week as they wish, if they need added support.

For more information, contact R&W, Bldg. 31, Rm. 1A-17, or call Diet Workshop, 567-3438.

Two Cash Awards Given To NIH Management Intern

Donald C. Poppke, NIH management intern, recently received a $400 Cash Award from the Department of Health and Human Services. During a 3-month assignment with the Office of the Secretary, Mr. Poppke assumed responsibilities as the executive secretary for the Budget Task Force and the Secretarial Task Force.

In addition, he performed other assignments including preparation of material on the Reconciliation Bill of 1981 and the 6-week forecast of budget events.

Following his assignment with the Office of the Secretary, HHS, Mr. Poppke accepted a 3-month assignment with the Division of Legislative Analysis, Office of the Director, NIH. In completing his tenure there, he received another cash award for $250.

While working in Legislative Analysis, he developed an issue paper that described previous Congressional interest and involvement in the NIH peer review system; developed a current legislative issue notebook which, for each major issue confronting NIH, briefly described previous Congressional activity, and the current status of legislation and its impact on NIH.

Mr. Poppke also participated in drafting a briefing book on the NIH mission, organization, and activities which was the focus for discussions between Acting NIH Director Dr. Thomas E. Malone, and OD staff, and the staff of Congressman Wexman's Subcommittee on Health and the Environment.

CC Staff Fellow Competes in Iron Man Triathlon

Dr. James L. Stevens, 28, a staff fellow working in the Clinical Center as a participant of the Pharmacology Research Associates Training Program, finished 28th out of a field of 584 entrants in the grueling fifth annual Iron Man Triathlon held in Hawaii last month.

He finished the course in 10 hours 48 minutes and 55 seconds; 1 hour 29 minutes and 14 seconds behind the winner. During the competition, Dr. Stevens had to swim 2.4 miles in the ocean, ride on a bicycle 112 miles, and then run a punishing 26.2-mile marathon.

For the past year, he has been preparing for this event by sticking to a 20- to 25-hour weekly regimen of running 55 miles, cycling 200 miles and swimming 6 to 10 miles. Last May, he competed in and won his first triathlon held in Richmond.

Body Is in a War

"The body is in one tremendous war with itself," he commented, about how the race forces the muscles to adjust and readjust to new stress each time a particular event is started.

Because the distances are so great, says Dr. Stevens, "it becomes a personal challenge rather than a race." His secret to running in such an event was to "eat and drink when you are not hungry or thirsty." Dr. Stevens says that he is looking for a sponsor for next year's Iron Man Triathlon. "No way would I miss it."

Lock your door and keep your neighbor honest.—Chinese Proverb

March 16, 1982

The NIH Record
Immunologic Lung Disease Discussed During Recent NIAID Consensus Conference

Increasing development of new chemicals in industry appears to be causing increasing numbers of respiratory problems among workers.

Low molecular weight chemicals once thought to be worrisome mainly for their toxic and cancer-causing potential are now being recognized increasingly by the research community. This emerging field of study is called occupational immunology.

Like the long recognized diseases caused by mineral dusts, vegetable matter, molds and fungi, the new chemicals provoke an immunologic reaction that is responsible for lung disease in a significant number of workers. The numbers range from 2 to 40 percent, depending on the occupation.

Because enough is known now to detect, diagnose and begin to prevent newly emerging and recognized diseases, the National Institute of Allergy and Infectious Diseases hosted a symposium Feb. 25 on occupational immunologic lung disease.

The symposium has been viewed as a prototype of the Department's new emphasis on disease prevention and an example of the need for government, the academic community and industry to work together, rather than against each other, in the search for solutions to important health problems.

The topic drew together more than 400 private practice and hospital-based physicians, industrial medical directors, basic and clinical researchers and representatives of civilian and military government agencies.

Symposium faculty provided a solid underpinning of the etiology of various diseases - farmer's lung, "TMA flu," silicosis, wood dust asthma - and the immunologic mechanisms now demonstrated to be involved in their pathology.

Yet, the framework was prevention: how to identify an occupational cause to a disorder that may appear to be chronic bronchitis or pneumonia; how to pinpoint the substance causing the syndrome; how to remove the worker from the causative substance; and how to alter the workplace environment.

There already have been successes. Bagassosis was traced to the prolific growth of organisms called Thermoactinomyces in baled and stored sugar cane waste (bagasse). Recognized that the organism was causing respiratory disease led to new storage and handling techniques that have eliminated bagassosis almost entirely.

Similarly, respiratory disease traced to organic growth in large, water-based air-conditioning systems can be eliminated by cleaning and treating water collection units.

Cooperation must be the keyword of the future, faculty agreed. Industries must be sensitive to patterns of symptomatology in workers and invite academic-based researchers to help them uncover the causes. Identification of new disease-causing substances must be substantiated through available and increasingly sophisticated technologies. Information must be relayed to clinicians, and clinicians must learn to include a good occupational history in their diagnostic workups.

With government offering support, direction and opportunities similar to the symposium for exchange of information, substantial progress can be made toward preventing additional cases of disease, the group concluded.

Symposium cochairs were the NIAID's Dr. Robert A. Goldstein, chief, Allergy and Clinical Immunology Branch; Dr. I. Leonard Bernstein, director, allergy training program, University of Cincinnati Medical Center; and Dr. Roy Patterson, chairman and professor, department of medicine, and director, NIAID-supported Asthma and Allergic Diseases Center, Northwestern University Medical School. The American Academy of Allergy cosponsored the meeting.

Tetracycline Drugs Stain Teeth During Childhood

Yellow-gray areas found on toddlers' teeth, or in teenagers, whose teeth are a yellowish-gray or gray-brown while others are white, are stains caused by taking a tetracycline antibiotic during a period of tooth formation.

This family of drugs has a special affinity for newly forming bone and dentin, the bone-like core of teeth.

Although tetracycline stains are permanent, the outer tooth enamel is seldom weakened and the teeth continue to function well. The color shows through because enamel on the teeth near the gums is relatively thin.

The antibiotic drugs are packaged with warnings that they may stain teeth, and indicate the possibility that incomplete or defective development of the enamel of the teeth (enamel hypoplasia) can occur. But some physicians may decide that the risk of particular infection overbalances the risk of stained teeth.

Tetracyclines, however, should seldom be prescribed either for pregnant women or for children under 8 years, because primary teeth form in the jaw before birth and permanent teeth develop during the early years of childhood.

National Institute of Dental Research investigators indicate that the risk of tetracycline incorporation into the teeth is particularly high during the first year of life. The immature kidney cannot excrete the drug efficiently and its concentration in teeth is therefore higher than it would be later.

When stains are very troubling to a child, dentists can sometimes mask them with one of the new plastic sealants or cover them with caps.

HERPES VIRUS

(Continued from Page 1)

is our feeling that the development and understanding of antiviral drugs and their potential toxicities has not yet grown sufficiently to permit us to recommend very long-term suppressive regimens. 

In order to learn more about the drug and its potential for long-term effects, Dr. Straus recently has undertaken a limited, double-blind placebo study with 32 "normal" (immune competent) patients who have severe recurrent genital herpes.

Each one of the 16 men and women selected have experienced at least 12 episodes annually for a duration of 1 year or more. The study will last for 4 months.

Dr. Straus underscores that the treatment is still experimental and cannot be recommended for most normal persons with mild or intermittent episodes of disease.

Coauthors of the paper are Holly A. Smith and Dr. Chaim Brickman, both of Medical Virology, NIAID, and Drs. Paulo DeMiranda, Colin McLaren, and Ronald A. Keeney, all of the Burroughs-Wellcome Corporation, Research Triangle Park, N.C.
Fiber Optic Instrumentation Discussed During Recent NIAID Workshop

Some two dozen experts in various scientific disciplines met at an NIH workshop Jan. 21-23 to discuss The Role of Fiber Optic Instrumentation in Digestive Diseases Research.

The meeting was organized and sponsored by NIAID's Digestive Diseases and Nutrition Program with the assistance of the American Society for Gastrointestinal Endoscopy. Scientists, engineers, clinicians and manufacturers of endoscopic devices attended the meeting.

Fiber optic technology in the form of flexible and endoscopic devices has made it possible to view the interior of the digestive tract, take biopsies and remove polyps without abdominal surgery.

Endoscopy has also made it possible to identify the site of upper gastrointestinal (GI) bleeding by direct observation and has shown that erosions and not ulcers are the most common cause of GI hemorrhage.

The purpose of this conference was to examine how this new technology could be used in research on various normal functions and diseases of the digestive tract.

The discussions and deliberations focused on three specific subjects: Circulation, chaired by Dr. Eugene Jacobson, University of Cincinnati; Morphology, chaired by Dr. Erhard Haus, St. Paul-Ramsey Medical Center, Minneapolis; and Secretion, chaired by Dr. John Walsh, UCLA.

One of the highlights among more than 20 recommendations for future research developed from the workshop is the need for a quantifiable method to continually measure mucosal blood flow. This type of procedure could be relevant to the development of stress ulcers and the healing and recurrence of peptic ulcers.

It may also be useful in distinguishing between ischemic colitis and inflammatory bowel disease. The laser-Doppler velocimeter was identified as being one method that might be sensitive to rapid changes in blood flow, provide continuous monitoring, and produce quantifiable results.

Another major recommendation called for additional studies to better understand the normal tissue of the digestive tract including the effects of time on cell kinetics and proliferation and the effect on these functions of various agents including carcinogens. Such studies could contribute to our understanding of the healing of GI lesions.

The group also agreed that there is a need in the research community to develop an endoscopically applied collecting cup for gathering a mixture of pure pancreatic and biliary secretions, uncontaminated by intestinal contents.

Such experiments may contribute to an understanding of the cause and a better treatment for pancreatitis. Workshop participants also indicated that, under selected circumstances, it may be possible to conduct spectrophotometric measurements through a fiber bundle in an endoscope and thus monitor chemical changes.

A detailed summary of this workshop is available from Dr. Kirt Vener, Program Director for Esophageal, Gastric and Colonic Diseases, NIAID, Westwood Bldg., Rm. 604, Bethesda, MD 20205, (301) 496-7821.

Irving Shapiro

Spring/Summer Hayfever Sufferers Needed as Volunteers

Spring and summer 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 summer 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 injection 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.

March 16, 1982

The NIH Record
NIH Shutterbugs To Compete at Annual Photo Contest

The annual NIH Employees' Photographic Competition will be held on Tuesday, Apr. 13, at 7:30 p.m., in Wilson Hall, Bldg. 1. The event is open to the public. Judging will be done by well-known photographers not associated with NIH.

The contest is sponsored by the NIH Camera Club. Photos and slides must be entered at Wilson Hall, between 11 a.m. and 7:30 p.m. on Apr. 13.

There are three categories of entry: slides, color prints, and black and white prints.

Competition rules require all slides to be in 2x2 mounts and contain an orientation mark in the lower left corner.

Prints may be no smaller than 5x7 inches and no larger than 16x20 inches. All prints must be mounted on a matte no larger than 16x20 inches. No prints may be submitted in any type of frame.

In addition, an individual may enter as many as four photos in each category per entry fee of $2 per category entered. Prints may be commercially processed.

Winning photos, including honorable mentions, from previous NIH employee photo competitions may not be entered.

The competition is open to all NIH employees, NIH Camera Club members, and their immediate families. There is no restriction on subject matter of the entries.

Competitors should have the photographer's name and the photo title on the back. All slides must have the photographer's name and photo title on the side of the mount opposite from the orientation mark.

Prizes will be awarded to the winners in each category: First Prize is $30; Second Prize, $20; and Third Prize, $10. All honorable mentions will receive an award ribbon. NIH Camera Club members may count points won toward star awards.

Although due care will be taken in handling all entries, the NIH Camera Club will not be responsible for losses or damage.

Entries not picked up at the conclusion of the judging can be retrieved at Wilson Hall on Wednesday, Apr. 14, from noon to 1 p.m.

For further information, contact Heather Banks, 340-3327, or Ken Rhodes, 426-1684.

Change Eating Patterns To Look, Feel Better

Any drastic alterations in basic food intake (as in holiday eating or cold weather hibernation) can result in physiologic responses, according to Dr. Ann Sorenson, Johns Hopkins University School of Hygiene and Public Health.

More meats and heavy foods can make one feel sluggish, and added sugar has a tendency to draw water into the bowel and cause diarrhea. The problem is that our bodies are not used to handling those foods in such quantities.

Dieting can be dangerous if complex carbohydrates are eliminated in favor of high fat and protein foods. Low carbohydrate diets force the body to use some of its stored fat glucose, for fuel. Without adequate glucose, we don't feel well because some fats are incompletely converted producing ketone bodies, and the delicate acid-balance of the system is upset.

Some tips for successful dieting include:

- Make a serious commitment to return to a nutritious eating pattern.
- Don't diet, making drastic changes for a certain amount of time, and revert back to old overeating habits. This "yo-yo" effect is more risky than being slightly overweight.

Visiting Scientist Program Participants

Sponsored by Fogarty International Center

2/1—Dr. Kimio Tomita, Japan, Laboratory of Chemistry. Sponsor: Dr. John Psaro, NIH-LBI, Bg. 10, Rm. J726.

2/1—Dr. Yutaka Doi, Japan, Laboratory of Biological Structure. Sponsor: Dr. Edward Eanes, NIDR, Bg. 30, Rm. 224.

2/2—Dr. Eva Mezey, Hungary, Unit of Neuroendocrinology. Sponsor: Michael Brownstein, NIMH, Bg. 10, Rm. 204.

2/7—Dr. Kamlesh Bhasin, United States, Rehabilitation Medicine. Sponsor: Dr. Lynn Gerber, CC, Bg. 10, Rm. 5D07.

2/16 Dr. Tan Zu-Kim, China, Laboratory of Molecular Biology. Sponsor: Dr. H. Todd Miles, NIAID, DK, Bg. 2, Rm. 201.

2/18 Dr. David G. Owen, United Kingdom, Laboratory of Neuropsychology. Sponsor: Dr. Jeffery Barker, NINCDS, Bg. 36, Rm. 2C02.

Dr. E. Jordan Named NIGMS Programs Director

Dr. Elke Jordan has been appointed associate director for program activities, National Institute of General Medical Sciences.

In her new position, Dr. Jordan will coordinate and direct the scientific and fiscal management of NIGMS research and research training grant programs having a budget in excess of $300 million.

She will maintain scientific and financial overview of Institute programs in order to provide effective advice to the Director on planning, development, and administration of Institute program areas; advise program staff on scientific management and implementation of programs; and act as liaison with other components of NIH for grants administration and peer review activities.

Lillian Kallir, Pianist, Featured in FAES Concert

The seventh concert of the Chamber Music Series, sponsored by the Foundation for Advanced Education in the Sciences, Inc., will be held on Sunday, Mar. 28, at 4 p.m. in Masur Auditorium. Lillian Kallir, pianist, will be featured. Admission is by ticket only.
Cleaners Press for More Customers

Cleaners, a D.C.-based dry cleaning establishment owned by Ossie Simms, manager for the last 6 years of the NIH Valet and Clothing Center. Many employees, particularly the newer ones, don’t know that we are here,” she says, noting that her location on the lower level of Bldg. 31 (B1-E07, Ext. 496-3023), across from the mailroom and down from the R&W shop, may be the reason why more pairs of trousers and dresses have not come in. Each year since 1973 when Rocket Cleaners, a D.C.-based dry cleaning establishment owned by Ossie L. Turner, became the third minority-owned concessionaire to operate on campus, it has taken care of the basic dry cleaning and clothing repair needs of NIH employees.

Daily, Mrs. Simms sorts dry cleaning and makes sure that every item is properly marked before it leaves the premises. Among some of the services the Valet Shop provides are dry cleaning, waterproothing, minor alterations and repairs, and 4-day shirt service.

Normal operating hours are from 8 a.m. until around 5 p.m. The only time that she is not assisting customers or inspecting clothing for such foreign items as forgotten ink pens is during lunch between 1 and 2 p.m.

There are some items, however, that Mrs. Simms will not handle. They include sheets, towels, and tablecloths. The shop will not clean or repair suede or leather apparel.

A sign behind the cash register indicates that no responsibility will be taken for buttons, buckles, bows or glued-on patches, hems and ornaments.

She has an uncanny memory for names and work telephone numbers for employees, some of whom travel all the way from the Westwood and Landow buildings because they have been more than satisfied by the work done by Rocket.

“We like people to have their tickets when they come to pick up,” she says, adding that even if a person forgets the customer copy, she can still retrieve the clothing.

Gene Transfer To Be Discussed At Frederick Facility Workshop

The Frederick Cancer Research Facility will host a 3-day workshop sponsored by Litton Bionetics, Inc., on Gene Transfer and Cancer, to be held on Apr. 16-18.

The workshop’s purpose is to discuss the development and use of gene transfer methods in studying gene expression in mammalian cells, with particular emphasis on cell and viral genes affecting the transformed phenotype. The role of methylation in the expression of eukaryotic genes and recent studies on bacterial transformation will also be covered.

The information to be discussed is intended to promote the application of the methods of molecular genetics to the analysis of the biological mechanisms distinguishing normal from transformed cells.

The session topics include: bacterial transformation, methylation, chromatin structure, gene expression, transforming viruses, vectors, transforming genes, gene transfer, and gene rescue.

The workshop will begin at 9 a.m. on Friday, Apr. 16, and will end at noon on Sunday. For registration information, contact (301) 633-7359.

NIH Golf Association Announces Season’s Plans

The NIH R&W Golf Association has announced plans for upcoming tournaments and prizes for men and women.

Eight-stroke play tournaments followed by a five- or six-round double elimination match are being planned.

In addition to prizes for low net in each foursome, awards will be given for low net (2) and low gross (2) in each of five or six groups (flights) which are arranged according to handicaps; closest to the pin on par fours; and longest drives on par fives.

Full handicaps are allowed for all events.

To join, or for more information, call Jack Turlick, 871-6670 or Ralph Stork, 496-4328.
Diabetes Clinical Trials

To Begin in 21 Centers

The National Institute of Arthritis, Diabetes, and Digestive and Kidney Diseases announced Mar. 1 the selection of 21 medical centers to participate in a nationwide clinical trial in diabetes, a disorder affecting 11 million Americans.

The purpose of the long-term study is to examine whether tight control of blood glucose levels in diabetics can prevent, delay, or lessen the development of early complications that affect blood vessels.

For the first time in over 50 years of diabetes research, advances in technology have made it possible to achieve tight blood glucose control. The development of the insulin pump and devices for home blood glucose monitoring that allow more aggressive diabetes management has now enabled researchers to conduct such a study.

The 21 medical centers and a data coordinating center will participate with NIADDK in the four-phase study, which may take 10 to 15 years to complete. In the first phase, specific protocols and uniform guidelines will be established for conducting the clinical trial.

These guidelines will include development of treatment programs for tight and conventional blood glucose control and standardized methods to measure and assess differences in control. Phase I will take approximately 2 to 12 months to complete, at an estimated cost of $1 million.

Phase II will consist of clinical studies of approximately 200 insulin-dependent volunteers. Issues of control, treatment rate of patient compliance, and assessment of treatment methods will be examined.

The full-scale trial, phase III, will involve approximately 400 to 600 volunteers with insulin-dependent diabetes. Diabetic retinopathy—damage to blood vessels in the eye that can lead to blindness—will be the primary complication to be assessed in the full trial.

Two categories of patients will be recruited: those with no evidence of retinopathy and a second group with early signs of the complication.

This will make it possible to determine simultaneously whether tight control can prevent the development of eye complications.

Analysis and reporting of data generated during the trial will be assessed during phase IV and conclude the study.

For a list of the 21 centers selected for the clinical trials, call the NIADDK Office of Scientific and Technical Reports, 496-3583.

Minority Program Scientists, Administrators To Hold 10th Annual Research Symposium

Dr. James H. M. Henderson, professor of biology at Tuskegee Institute and a charter grantees of NIH's Minority Biomedical Research Support (MBRS) Program, will be the keynote speaker at the Ninth Annual MBRS Symposium Apr. 3-5, in Albuquerque, N.Mex.

A well-known researcher in the field of biological science, Dr. Henderson will discuss the development of biomedical research activities at minority institutions in relation to the history of the MBRS program.

Approximately 1,500 minority student researchers, faculty scientists, and biomedical research administrators from 81 institutions are expected to attend the largest gathering of minority biomedical researchers, an event funded by the Division of Research Resources and coordinated by the University of New Mexico.

In addition to presentations from several internationally renowned scientists, approximately 300 scientific research papers and more than 200 posters are expected to be presented by student researchers and faculty members.

Special invitations will be made to presentations on metalloproteins, endocrinology, genetic engineering and hybridomas, alternative sources of funding for biomedical research, and careers in the biomedical sciences.

Scheduled speakers include Dr. Theodore Cooper, executive vice president of Upjohn Company, a former assistant secretary of HEW, and former Director of NHLBI. He will speak on alternate sources of funding in biomedical education and research.

Dr. Bert Valee of the department of biological chemistry at Harvard, will lecture attendees on metalloproteins, a new field of investigation studying the biological role of trace metals within living organisms.

Other speakers on this subject will include Dr. Peter Hambrigt of the department.

Workshops on Career Options To Be Held on Apr. 13, 20

The Career Development Branch, DPM, is sponsoring two workshops on the following dates:

Self-Assessment and Career Options for Professionals, Tuesday, Apr. 13 (nomination deadline, Mar. 30).
Self-Assessment and Career Options for GS-13 or below, Tuesday, Apr. 20 (nomination deadline, Apr. 6).

Participants will learn how to define their skills, goals, and values, and how to analyze the information for career options and action plans.

Interested employees should complete training evaluation and authorization form DHEW 350. Flyers describing the workshops and application procedure are available from the Office of the Career Development Branch, Bldg. 31, Rm. B2C-39.

For further information call, Dr. Ursula Lohmann, 496-6211.

NIH Toastmasters Sponsor New Club

The NIH Toastmasters Club is sponsoring a new club in Kensington which meets every two weeks. Those employees interested in developing their communications and leadership skills in evening sessions can contact Dr. Padman Sarma, 496-2013, or Loren Ziller, 496-6385.

Dr. Holzer of West Germany Returns for Third FIC Term

Professor Helmut Holzer, chairman of the department of biochemistry, University of Freiburg, W. Germany, has recently returned to NIH for his third term as a Fogarty scholar-in-residence.

Dr. Holzer is well known for his work with proteins and their role in post-translational processing of gene products.

During his first term in 1977, he and Dr. Georges N. Cohen, also a Fogarty scholar, organized a meeting on Limited Proteolysis in Microorganisms. The conference took place in 1976 during Dr. Holzer's second term.

This year he will collaborate with Dr. E. Freese, NINCDS, on problems of spermatogenesis and spore germination.

His office is in Bldg. 16 (Stone House), Rm. 302A, 496-2091.