President Names AIDS Commission at NIH

President Reagan named his 13-member Commission on the Human Immunodeficiency Virus Epidemic on July 23 before a large audience of NIH and DHHS dignitaries in the 14th floor auditorium of the Clinical Center.

No sooner was the commission named than the president sent it to its first meeting, held in the Stone House. It is to report back to the White House in 90 days on the best way to handle the AIDS problem in this country.

NIH Director James Wyngaarden briefed the president on NIH efforts to fight AIDS. NIAID Director Anthony Fauci, whose institute has mounted the largest effort to combat AIDS, added further details. Early trials to evaluate the safety of a potential AIDS vaccine will likely commence this year, Fauci told Reagan.

The president, who had visited with young AIDS patients on 13 West of the CC before making his announcement, was cautiously optimistc about the government’s chances of early success against AIDS. Comparing AIDS research with recent progress in physics, Reagan said he hoped AIDS investigators would have the same luck that has recently helped scientists working on electrical superconductivity.

Reagan numbered himself among those who have lost friends and associates to AIDS.

“I hope the commission will help us all put aside our suspicions and work together with common sense against this threat,” he said.

NIAMS Comes Into Its Own

Breaking Up Isn’t Too Hard To Do

They say that breaking up is hard to do, but you couldn’t prove it by NIH’s newest institute, the National Institute of Arthritis and Musculoskeletal and Skin Diseases.

NIAMS was taken like a rib from the side of NIADDK when Congress passed legislation on Nov. 20, 1985, creating a new organization.

In the 20 months that have elapsed since then, NIAMS has pursued its mandate with a largely unhobbled gait.

Institute Director Dr. Lawrence Shulman says NIAMS’ quick start can be attributed to three advantages—precedent, partnership and planning.

“New institutes have been created out of old ones before,” he observed, recalling that NICHHD began NIA and that NIE sprang from NINCDS. “These precedents were reviewed by our management analysts. Right from the start, the administrative staff of NIADDK had a carefully constructed plan for NIAMS.

“We’ve been fortunate to have received a great deal of help and cooperation from the parent institute and from NIH leadership, who helped us secure the resources with which to begin the new institute.”

Shulman took over the embryonic institute as acting director at the request of Dr. Otis (See NIAMS, Page 2)

DRR at 25: Exploring New Research

By Michael Fluharty

The Division of Research Resources—the key stone of NIH extramural research—has been providing a multifaceted group of shared resources for the past 25 years, including clinical research centers, high technology instruments, animal models, and scientific training for minorities. Originally called the Division of Research Facilities and Resources at its inception in 1962, DRR’s mission has remained the same: conceive, develop, and ensure the availability of resources essential to NIH-supported human health research at institutions throughout the U.S.

DRR Director Betty H. Pickett groups the division’s programs into two broad types, those that fund research facilities and environments, and human resources.

“Twenty-five years ago DRR was given eight clinical centers, an animal program, and several embryonic computer resources which we’ve developed into major research facilities and environments. And I’m equally proud of our innovations in developing significant human resources for biomedical research such as specialized training for minorities,” says Pickett.

The diversity of DRR—which funds only extramural research—and its programs can be seen at many different institutions throughout the U.S. For example, the University of Washington (UW), Seattle, received 26 separate divison awards in fiscal year 1985. One of the largest grants was from the Animal Resources Program for a regional Primate Research Center that conducts biomedical research on primates with emphasis in developmental biology, neuroendocrinology of cardiovascular function, endocrinology and metabolism, and immunogenetics. Other Animal Resource Program grants to UW provide for a bibliographic database information center and a primate clearinghouse.

At UW’s medical school DRR supports a 10-bed General Clinical Research Center (GCRC) where protocols include treating cancer patients with interleukin and interferon, researching the effects of recombinant erythropoietin in patients with renal failure, studying the relationship of hormonal rhythms to aging and psychiatric disorders, and investigating possible treatments for postmenopausal osteoporosis. The GCRC program also provides UW with funds for CLINFO, DRR’s computerized data management and evaluation system for clinical investigations, and a clinical associate physician (CAP) grant, which supports physicians developing their research careers.

UW receives multiple grants from DRR’s Biomedical Research Technology Program, including support for a physiology and biophysics lab (See DRR, Page 4)
Bowen, secretary, DHHS, who formally established the institute in April 1986. Up to that point Shulman had been director of NIADDK's Division of Arthritis, Musculoskeletal and Skin Diseases. A rheumatologist by training, he had come to NIH in 1976 from Johns Hopkins University School of Medicine to help NIH develop a congressionally mandated national arthritis plan.

Today, Shulman stands at the helm of an institute that, by the end of the fiscal year, will be staffed with 100 employees and is "well on track." He was named director of NIAMS in January.

Like its peer institutes, NIAMS is charged by Congress to conduct and support research and research training, to disseminate health information, and to conduct other related programs in the diseases for which it is responsible.

The NIAMS intramural program has two components—the Arthritis and Rheumatism Branch headed by the institute's new scientific director Dr. Henry Metzger and the Laboratory of Physical Biology headed by Dr. Richard J. Podolsky.

"The Arthritis and Rheumatism Branch is concerned with immunology and molecular biology as they relate to the rheumatic diseases," Shulman explained. "It conducts clinical research, concentrating on rheumatoid arthritis, lupus and polymyositis."

Podolsky's lab focuses on muscle biology and the mechanics of muscle contraction "by applying very sophisticated biophysical techniques and elegant ultrastructural research," said Shulman.

Extramural research is conducted in five main areas: rheumatic diseases, of which there are more than 100; orthopedics, including bones, joints and connective tissues; bone biology and metabolism, including osteoporosis research; basic muscle biology; and skin diseases.

"There are a significant number of initiatives and accomplishments in each of these areas," Shulman said. The search for infectious causes of arthritis is receiving special emphasis at this point, as is research on osteoporosis and osteoarthritis. Shulman's own field of investigation—systemic lupus erythematosus—also continues to be active and productive.

New program priorities probably unknown to most NIHers include sports medicine and athletic injuries. "We're very much interested in musculoskeletal fitness," said Shulman. "We intend to build a knowledge base in this important area in the same way that the NHLBI has built the knowledge base for developing and promoting cardiovascular fitness."

NIAMS is also investigating the causes of low-back pain, the most common cause of limited activity in Americans ages 17 to 44.

"We need to know much more about the treatment, cause and prevention of low-back pain," said Shulman.

NIAMS is also charged by Congress to develop a national plan for investigation into the epidemiology, etiology and prevention of disease, and to do basic as well as applied research, including work on joint replacement and development of drugs and devices.

"We've had a lot of work to do," Shulman concluded. "We're energized by research advances in the field."

Though NIAMS offices are currently spread throughout all three wings of Bldg. 31, plans for permanent, contiguous space are being made. Breaking up wasn't too hard to do, but coming together will certainly be a convenience. □

BIG Presents Awards

The NIH chapter of Blacks in Government recently presented awards to nine individuals.

The Outstanding Manager Award was presented to Dr. Melvin L. Spann, chief of Biomedical Information Services Branch, SIS, NLM. Spann was recognized "For an outstanding record of commitment to career mobility for minorities and women, acting as a mentor and role model for the next generation of employees."

The NIH Community Involvement Award was presented to Darlene Christian, freedom of information specialist, OD, OC; June Caldwell, retired special assistant to the deputy director, OD, OERT; and George Duvall, retired biological technician, NINCDS. This award recognizes role models and persons who have persevered in spite of adverse odds to obtain meaningful goals.

The Martin Luther King Help Somebody Award was presented to Roy Chahalom, employee development specialist, OD, DPM; and Franklin Jackson, electrical engineering technician, OD, DES. This award is given to individuals who give of themselves regardless of the consequences or reprisals for the betterment of someone else.

The Career Milestone Recognition Award was presented to Norman Mills, administrative officer, DRR, and to Arthur Rush, administrative officer, NIDR. Vincent Thomas, Jr., management analyst, NIAID, received the Chapter Involvement Award. □
Scientist Discusses Radon Risk in Housing

By Lisa Datta

Where would you rather live? Next to a nuclear power plant or on top of a geographic formation emitting radon? In all likelihood you would find both situations undesirable. But while a nuclear power plant next door is an obvious threat, few people know what lies beneath the foundations of their homes. This is one situation where you don’t know can harm you.

Exposure to ionizing radiation is known to increase the risk of developing some cancers, including leukemia and lung cancer. The Environmental Protection Agency estimates that between 5,000 and 30,000 lung cancer deaths each year are caused by exposure to radon, a radioactive gas emitted from granite and shale that is a product of the decay of uranium.

According to Dr. Zdenek Hrubec, a scientist at the National Cancer Institute, it is not radon itself that causes harm but decay products of radon called radon daughters, or progeny. These decay products emit alpha radiation, a type that is especially harmful because the biological effect is thought to be 20 times greater than the physical dose.

Hrubec spoke recently on the subject of radon exposure in housing. The number of homes contaminated with radon depends on who you ask. According to EPA estimates, 8 million homes in the U.S. contain levels of radon in excess of the safety guideline set by the EPA. But according to the National Commission on Radiation Protection, the number of homes affected is 1 million. The only conclusion that can be drawn, says Hrubec, is that we have only a rough idea of the extent of radon exposure in housing.

While the extent of the problem is only approximately known, it is clear how radon enters a home. Radon is transmitted from the soil and water. It enters through cracks in foundation slabs, crawl spaces and pipes that carry water or gas into the house. Houses act like chimneys, says Hrubec. Because of the lower air pressure on the inside of most contaminated homes, radon is sucked into a home like smoke into a chimney.

One reason that radon contamination in housing is more of a problem today is the increasing energy efficiency of homes. Houses today are not as drafty as they used to be. While the air-tight home saves on energy bills, it may also cause radon to build up to unhealthy levels.

For the anxious homeowner concerned that his or her home environment is increasing the risk of cancer, Hrubec offered advice on how to determine the radon level in one’s home and what to do if this level is high.

According to Hrubec, it is difficult to ascertain the radon level by taking “grab sample” measurements since the amount of radon in the atmosphere fluctuates over time. Therefore, any measurement device should be placed in the home for at least a week, ideally for several months. In addition, measurements should be taken when the home is closed up such as in the winter.

Once a house has been found to contain unhealthy concentrations of radon, the EPA suggests covering up floors, walls, sump-pumps and other areas from which radon emanates. Increasing ventilation also helps since it dilutes the concentration of radon in the air and reduces the negative pressure on the inside of a home.

AIDS Threat to Workers Seems Slight

By Lisa Datta

The chances of getting AIDS from casual contact are practically nonexistent. Therefore, health-care workers who treat AIDS patients have nothing to fear (as long as they take proper precautions), and employees who work with infected coworkers have no rational basis for alarm. This, in a nutshell, was the message presented to a capacity crowd attending “AIDS in the Workplace,” a program sponsored by the Division of Safety that addressed the concerns and fears that have grown as the AIDS epidemic continues to spread.

The reason AIDS is such an alarming disease is that there is currently no hope of recovery. Dr. Anthony Fauci, director, NIAID, underscored this fact in his presentation. According to Fauci, 58 percent of recently diagnosed patients have died and it is expected that all of them will eventually succumb to the disease.

It may be of some comfort to know that there are only two ways that someone who is not born with AIDS can become infected: through sexual contact with an HIV-infected person and through exposure to the blood of an infected person. Children who are born with the disease contract it from their mothers during birth or through the placenta.

Although the chances of getting AIDS by handling the blood samples of HIV-infected persons is very small, Dr. David Henderson, chief of the Hospital Epidemiology Service, Clinical Center, encourages all health-care workers “to consider blood samples as harboring pathogens.” He says that “all of us who handle blood should minimize the risk of transmission.”

According to Henderson, a vast amount of data suggests that AIDS is not spread through casual contact. If it were, he says, the disease would have a much different epidemiology. Studies of health-care workers and roommates of AIDS patients give no indication of transmission through casual contact. Family studies provide, perhaps, the most convincing evidence that AIDS is not spread through casual contact. No one has been infected with AIDS from another family member with the disease except through sexual contact or maternal-fetal transmission.

Dr. John Fletcher, chief of the Bioethics Program at the CC, discussed some of the ethical issues that have arisen as a result of the AIDS epidemic. Specifically, he dealt with the rights of persons who are infected. Because there is no evidence to suggest that the casual contact that occurs in the workplace can transmit AIDS, HIV-infected persons should not be discriminated against. Quoting current guidelines, Fletcher said, “infected persons should not be restricted from using telephones, office equipment, toilets, showers, eating facilities and water fountains.”

Fletcher also asserts that an HIV-infected person has no ethical duty to disclose his or her medical condition to supervisors or coworkers. The only people who have a right to know are the physician treating the individual or a sexual partner.

The recommendations and guidelines in effect today are based on the current state of knowledge on AIDS. If it became evident at some future date that AIDS can be spread through some other mode, making the HIV-infected person a threat to the health of others, then the current guidelines should, of course, be modified. Infected persons could then justifiably be restricted in the workplace.

Copies of the videotape “AIDS and the Workplace” are available from the Division of Safety, Bldg. 31, Rm. 1C02, 496-2801. For further information about the Clinical Center’s Hospital Epidemiology Service, call 496-2209. To report an adverse exposure such as a needle stick or mucosal splash, contact the Occupational Medical Service, 496-4411.
computer for biomedical research applications such as synaptic input to brain stem respiratory neurons, muscle contraction, membrane biophysics, and cardiovascular control. DRR also funds minority high school research apprenticeships, shared instruments, and pilot research projects through the Biomedical Research Support Program.

Only two of DRR’s programs have not awarded grants to UW: Minority Biomedical Research Support, targeted at predominantly minority schools to increase the numbers of minority biomedical scientists, and Research Centers in Minority Institutions, funded by the NIH Office of the Director but managed by DRR with the goal of enhancing the biomedical research infrastructure of doctoral-granting institutions serving predominantly minority student populations.

A Wealth of Programs, Resources

For the past 25 years GRCs have been among the most visible DRR-supported resources at institutions like UW. In 1962, DRR supported clinical centers in 8 institutions; today, with a $92 million budget divided among 78 centers nationwide, the program provides the equivalent of a 600-bed research hospital.

A typical center has eight patient beds, core laboratory, metabolic kitchen, treatment rooms, patient lounge area, nurses’ station, conference rooms, and an outpatient section. Staffed with specially trained nurses, dietitians, and a program director, and frequently with a biostatistician and computer systems manager, GRCs provide the best possible clinical setting for research patients.

Research protocols vary considerably from center to center because of investigators’ different backgrounds and interests. For example, at more than 35 centers, scientists are focusing on the epidemiology, risk factors, and characterization of altered immune responses of patients infected with the human immunodeficiency virus (HIV).

Other GRC investigators have developed treatments and special diets for some genetically transmitted childhood disorders that prevent proper disposal of body wastes, while others have developed prenatal screening tests for those disorders. Researchers at another center have treated premature infants suffering from respiratory distress syndrome with surfactant purified from human amniotic fluid.

Before new treatments or procedures are ready for human use they first must be tested on animals. The Animal Resources Program (ARP) was created in the early 1960’s to provide researchers with animal models. The most widely recognized ARP section is the Primate Research Centers. More than 13,000 sub-human primates from 34 species are housed at the seven centers located at Emory, Tulane, and Harvard universities, and at the universities of Wisconsin, Oregon, Washington, and California at Davis. ARP also has a biological models section that supports efforts to develop nonmammalian biomedical research models, and a laboratory animal sciences section that supports research to improve the care and health of research animals.

Historically, animals have figured prominently in many clinical advances, including heart disease, cancer, degenerative neuromuscular diseases, and mental disorders. Now, scientists say animal research will be a key in finding a treatment and cure for AIDS. Many protocols at the Primate Research Centers are focused on that task: three centers are conducting research on monkeys with simian immunodeficiency virus while two others are studying HIV.

Resources in the division’s Biomedical Research Technology Program (BRTP) adapt existing technology and develop new or “hybrid” instruments to address biomedical research problems. Originally focused in 1962 on large general purpose computer centers, the program today leans heavily toward technologies for the study of biomolecular and cellular structure and function, artificial intelligence, and powerful computers. BRTP, which in fiscal year 1985 provided funds totaling $44 million to grantees, supports 61 shared resource centers.

Increasing the number of minority biomedical scientists is the mission of DRR’s Minority Biomedical Research Support (MBRS) program. Though only 15 years old, this program has already begun to help redress the under-representation of blacks, Hispanics, American Indians and others by providing research opportunities for more than 13,000 students in addition to supporting faculty researchers and institutional development.

Last year alone MBRS funds supported research positions for more than 1,100 undergraduate and 400 graduate students. The funds also supported nearly 850 faculty investigators. To date, more than 1,150 MBRS students have received doctorates in the health sciences, medicine, and dentistry with nearly 650 additional students currently enrolled in medical or dental schools. While DRR provides the lion’s share of MBRS funding, nearly $11 million in co-funding is provided by other NIH components and the Alcohol, Drug Abuse, and Mental Health Administration.

Initiated in 1960, the Biomedical Research Support Program (BRSP) funds three different activities. The program’s main thrust is to provide institutions with discretionary funds through BRS grants. Often used by institutions to allow new investigators to develop pilot projects, these flexible funds have supported research resulting in some major discoveries. Researchers at a midwestern medical college, for example, in collaboration with scientists from two other institutions, found a genetic marker that predicts which chemotherapy treatments will be ineffective against which cancers.

In addition, Shared Instrumentation Grants (SIG) provide researchers with complex biomedical research instruments. The third BRSP activity supports summer apprenticeships in...
The Record

Looking to the Future

Dr. Basil I. Hirschowitz, an investigator at the University of Alabama School of Medicine in Birmingham who was the institution’s DRR-supported General Clinical Research Center, developed the technology of fiber optics, creating the first flexible endoscope. He was recently named winner of the 1987 Kettering Prize of the General Motors Cancer Research Foundation awarded annually for the most outstanding contribution to the diagnosis or treatment of cancer.

Dr. Hirschowitz

Three New Members Named To NHLBI Advisory Council

Three new members have been appointed to the Advisory Council of the National Heart, Lung, and Blood Institute.

They are: Drs. Antonio M. Gotto, Tibor Jack Greenwald, and Hans Welll. Their terms run through October 1990.

Gotto is Smith professor and chairman, department of medicine, Baylor College of Medicine. While at Baylor, he has been director of the NHLBI-supported Specialized Center of Research in Arteriosclerosis and director of the Lipid Research Clinic. He is presently principal investigator and director, National Heart and Blood Vessel Research and Demonstration Center in Arteriosclerosis.

Greenwald is director of the Foxworth Blood Center and emeritus professor of internal medicine at the University of Cincinnati Medical Center. His previous positions include: medical director, Milwaukee Blood Center; chief, Hematology Clinic, Milwaukee County Hospital; and professor of medicine, department of medicine, Marquette University School of Medicine.

Weill is Schleider Foundation professor of pulmonary medicine and chief, pulmonary diseases section at Tulane Medical Center. He is presently director of the NHLBI-supported Specialized Center of Research on Fibrotic and Immunologic Reactions to the Occupational Environment.

Two NICHD Studies Need Vols

The Developmental Endocrinology Branch, NICHD, is seeking healthy women, ages 18-40, for menstrual cycle studies. Participants must be free of medical illness, currently taking no medication (including birth control pills) and have regular menstrual cycles.

Studies last 1-2 months and require frequent blood drawing. Compensation is available according to Normal Volunteer Program guidelines.

For further information, call Dr. Batista or Dr. Golden, 496-6909 or 496-6751.

The branch is also looking for women with amenorrhea who wish to participate in a study concerning the mechanisms of ovulation. Particularly sought are patients with central (hypothalamic) amenorrhea rather than ovarian failure. If you are unsure of the cause in your case, this can be determined by simple tests. Candidates must be 18-42 years and free of any other medical illness.

The study will last 3-4 months and will involve the administration of pulsatile hormone therapy in an attempt to induce ovulation. If fertility is not a goal, compensation may be offered according to standard NIH guidelines.

For further information, call Dr. Batista, 496-6909.

Rhesus monkeys, as seen in one of the five 1-acre breeding corrals at the Oregon Regional Primate Research Center, are the principal species used in many research areas, including reproductive studies. In addition to the Oregon facility, DRR supports six other primate centers through its Animal Resources Program.
Employee Counseling at NIH

Trouble With Stress?—Call ECS

"Life is essentially one darn thing after another and just when you think you are home free, you can be sure that there's a letter with your name on it in the mail."

Dr. Michael Bowler, one of the two employee counselors who work in the Employee Counseling Services, a part of the Division of Safety's Occupational Medical Service, is paraphrasing a statement attributed to noted psychotherapist Milton Erickson.

"It's a bit of an overstatement" says Bowler, "but it does capture a feeling that a lot of people have today about the stresses brought about by rapid change in our culture."

The presence of the Employee Counseling Services is in itself a reflection of the effects of these changes on people. A great many organizations have come to realize that there are strong interconnections between work stress and personal/family stress. Work-based counseling services have come into existence to deal with conflicts and concerns in these areas and the adverse effects on work productivity.

Bowler is part of a counseling program at NIH that has changed its focus in the last year and placed increased emphasis on short-term counseling, crisis intervention, and assessment, as well as information and referral to community resources. Mental health education programs and supervisory training with a more preventative orientation are also accentuated. A policy of complete confidentiality and privacy, however, remains emphatically in force.

"All federal agencies are mandated to have employee assistance programs," says Sarah Steck, the second employee counselor in the office. Steck is a licensed clinical social worker. Her credits include starting the employee assistance program at CBS Inc.

"Employee assistance programs originally were started to help employees deal with some of the problems associated with alcohol and drug abuse but have broadened out in recent years to deal with life stresses in general," Steck adds.

"As I see it, we're all in constant transition throughout life," says Bowler. "We're always dealing with some life event or change for the first time so it seems appropriate to use a counseling service as a way to understand that transition and its effect on our lives more clearly."

Bowler, a tall, friendly man, views NIH as a small community with a wide range of issues common to most communities—chiefly, the ubiquity of stress.

The door to the Employee Counseling Services office, located in Rm. B2B57 in Bldg. 31, is open to all employees at NIH who have either work or family/life issues to discuss. Many are reluctant to enter that door because they have misconceptions about the range of services that are available to them or because they assume that the services are highly specialized and that only people with "major" problems need apply.

"Employees may feel anxious about what lies beyond the ECS office door and may be reluctant to enter requesting service because it is hard to admit that you need help," Bowler said. "We like to think of ourselves as self-reliant when in actuality we constantly depend on others in our lives."

The Employee Counseling Services is beginning a number of outreach efforts directed to the NIH population so that the door to services is seen as easily accessible and so that entering through that door becomes a more acceptable possibility.

Bowler, a licensed clinical social worker with a background in mental health counseling and primary health care, arrived last summer from the Education Center at Sheppard Pratt Hospital in Baltimore. He describes himself as a generalist.

"I think of this office as a clearinghouse for all kinds of life transition information that might be helpful to all employees at NIH," he comments, leaning back in a chair that abuts a massive window looking out on the parking lot behind Bldg. 31. "Even this window can be useful as a counseling tool" he added "... as a frame for reflecting on the wide variety of options that may exist in a person's world which he/she might not have considered."

Employees can obtain assistance from ECS through self-referral—simply calling the office at 496-3164 and setting up an appointment—or through referral by a supervisor.

According to Steck, another area of ECS involvement centers around supervisory training activities offered on worksites or during supervisors' staff meetings. Sessions can be tailored precisely to the 2,431 (as of June 1987) supervisors at NIH. This means that ECS counselors are meeting with supervisors on their own turf and discussing their needs and issues.

What activities go on at these meetings? Counselors review ECS services, discuss how supervisors and counselors can work more effectively together, and consult on how to reach troubled employees before little problems become big ones.

Bowler's background includes working with chemically dependent people. Does NIH have a substance abuse problem? "There are employees with substance abuse problems, however it does not appear to be a big problem at NIH as a whole," he said.

Bowler finds the teaching aspect to working in the field of alcoholism rewarding.

"I use an approach that accepts self-diagnosis, which means teaching people what the symptoms of the addiction are and helping them to figure out if they have experienced those symptoms. Self-identification is the key to moving ahead to treat their disease. If employees don't recognize or admit their problem, it does no good to beat them over the head with accusations. What does work is to continue to give them information about their disease in a nonjudgmental way."

His advice to supervisors who detect evidence of substance abuse is to suggest referral to ECS. The initial referral might be an informal one, but should the employee decide not to take advantage of the service, the supervisor should set in motion a formal referral.

"Supervisors shouldn't point the finger and say, you have a drug problem, go see ECS; instead, they should point out the employee's unacceptable behavior on the job in an objective way and then refer them to ECS. Supervisors also shouldn't have to feel like 'Lone Rangers' who neglect the help they could get from 'Tonto's' in the form of ECS and personnel. Problems left coasting along almost always get
thoughts on the genome

A dozen years or so ago, it would have been unthinkable to map or sequence the human genome—the library of near-endless chemical repetitions that, for the biologist, comprises human life. Some say the word "genome" itself comes from an eminent scientist’s response to the question of whether the location of all human genes could ever be mapped on the 46 chromosomes—"Gee no!"—he is reputed to have answered.

The scientist’s astonishment was well grounded. There are about 3 billion nucleotides in the human genome; nucleotides are what form DNA. Only four basic nucleotides make DNA: thymine, cytosine, guanine, and adenine. These are sometimes called bases, of which there are two varieties, purines (adenine and guanine) and pyrimidines (cytosine and thymine).

Further simplifying matters is this—the four bases always combine in pairs. Adenine is always linked with thymine. Cytosine and guanine have been going steady since time immemorial.

The composition and helical shape of DNA were first reported in 1953. Thirty-four years later we are at the point where mapping the human genome is technologically feasible. Aside from the enormous cost of such an undertaking, scientists might want to consider which human genes would be selected for sequencing.

All of us differ from one another genetically, by 0.1 or 2 percent. Looking strictly at the table of contents, then, only a small chemical difference distinguishes a Ronald Reagan from a Col. Khadafy. Or a Pieter Botha from a Desmond Tutu.

Is that too heavy a thought for late July? We think so, and thus offer the following relief:

recombinant dna quiz

If you are in the habit of browsing through medical journals these days, then you have already seen tables of DNA sequences that look something like this: ATTACCCCTAT. Sometimes whole pages of Science are devoted to these repetitive alphabetical streams. If you don’t know that the letters stand for nucleotides, it can drive you ATTA your mind.

Just for the fun of it, the Record used the four basic nucleotide initials, A, C, G and T to make up as many words as it could. Those imagining themselves cleverer than the Record are invited to top our list; winners get a hearty handshake from the editor.

A—Why bore you with definitions of this indefinite article? It would be a waste of time.

AT—Not only a preposition, but a type of personal computer.

phone volunteers needed

Volunteers are needed now for a 24-hour telephone crisis intervention program, Montgomery County Hotline. Volunteers will receive extensive training in the communication skills required.

Hotline volunteers provide a willingness to listen to people dealing with such problems as personal relationships, family stresses, drug abuse, and depression. In addition, information and referrals are offered.

Volunteers must be 18 years or older, and commit to 4 hours a week for at least 1 year. Call 949-1255 for more information.
Management Tactics
Clinic a Success

Reaction was strongly positive from NIH'ers who attended the Management Tactics Clinic conducted by the NIH Training Center recently.

The clinic, a free training service, was created by the Training Center in response to reports of work overloads that create problems for some people who want to attend training courses. Leaders in various management fields condensed concepts or techniques that attendees could transfer immediately to their work situations.

In brief workshops, participants learned useful techniques to improve their writing, listening, speaking, negotiating, networking, and people management skills. Also available was a "film festival" that provided continuous showings of some of the latest concepts in management and employee development.

Attendance at the clinic exceeded expectations. Some found the desk-to-desk announcements so intriguing that they came in on annual leave time. Many thanked the Training Center for this service, saying that training budget cuts had precluded their attendance at full training events. Managers particularly liked the efficient format for both gaining new ideas and skills and assessing potential faculty for future courses.

Due to this overwhelming response, the NIH Training Center will expand the Management Tactics Clinic next spring (June 9, 1988).

If you were unable to attend the Management Tactics Clinic but would like to receive advance notice of relevant courses, call the NIH Training Center, 496-6371, and ask for the checklist of communication skills, supervisory and managerial programs.

Health Care Volunteers Sought

Mobile Medical Care, Inc., a nonprofit organization that provides health care for indigent persons in Montgomery County, is seeking volunteer physicians and nurses to work in its clinics.

It currently operates three afternoon and four evening clinics, all of which provide primary health care, including physical examinations, laboratory tests, disease management, and health education. Mental health services are also offered.

The clinics are located in Silver Spring, Kensington, Wheaton and Rockville.

For more information, call Mobile Medical Care at 460-3535.

Prostate Cancer Consensus Conference
Focuses on Surgery vs. Radiation

Prostate cancer is the second most common cancer among American men. Most cases occur in men over 50, however, because the male life span is increasing, early detection of and care for prostate cancer are gaining importance. A recent NIH consensus conference focused on the diagnosis, staging, treatment and followup of localized prostate cancer.

The panel strongly recommended that prospective randomized trials be set up to evaluate properly how modern radiation therapy compares with radical prostatectomy in controlling the cancer while maintaining quality of life.

Radical prostatectomy and radiation therapy are both effective treatments for cancers that have not spread beyond the prostate gland, the panel concluded. Although the 10-year survival for both surgery and radiation treatments is comparable, the value of each for lifelong survival without cancer recurrence has yet to be established.

Radical prostatectomy has provided a 15-year cancer-free survival for most patients with cancer limited to one lobe of the prostate, but patients treated with radiation therapy have not been followed long enough to determine if the results are equivalent.

The long-term complication rate (effects on nearby organs) from primary irradiation is now well-defined and appears to be acceptable, the panel concluded. A new type of surgery that spares the nerve controlling penile erection clearly reduces postoperative impotence, but the incidence of impotence over time from this surgery needs further evaluation. The panel recommends that sexual rehabilitation should address both medical and psychological needs.

The entire conference, including the final press conference, was broadcast live by satellite TV to more than 166 medical sites.

CRISP Courses Offered in Fall

One-day training courses in the Division of Research Grants' CRISP (computer retrieval of information on scientific projects) system will be offered on Thursdays, Sept. 17, Oct. 15, and Dec. 10.

Requests to attend courses should be directed, in writing, to: Chief, Research Documentation Section, DRG, Westwood Bldg., Rm. 148, and must be received at least 10 days before the training session of interest.

For more information, call 496-7543.
Dr. Bruce Schoenberg Dies of Cancer

Dr. Bruce S. Schoenberg, 44, a dedicated and prolific neuroepidemiologist who was chief of the Neuroepidemiology Branch at NINCDS until May, died July 14 of cancer.

"The energy with which he approached his work, his devotion to the subject, and the amount of himself he put into his work were just extraordinary," says colleague Dr. Karin Nelson, "even by NIH standards, where a certain amount of devotion is expected."

Widely respected for his contributions to the methodology of neuroepidemiologic investigations, Schoenberg was perhaps best known for neuroepidemiological studies of stroke. These included a door-to-door survey in 1978 of the 25,000 residents of Mississippi's Copiah County to determine the first racial differentials in the magnitude and clinical presentation of stroke and other neurological disorders in the United States.

Schoenberg's reputation and contributions to neuroepidemiology extended well beyond U.S. boundaries. He became the crucial element in initiating studies in West Africa, Mexico, Peru, Ecuador, China, and India. He was also responsible for establishing foci of neuroepidemiologic expertise in more than a dozen countries in Asia, Africa, Europe, and South America.

"He was unique," explains Dr. Lawrence Lavine, Schoenberg's primary assistant for the past year. "He had a grasp and understanding of neuroepidemiology that is exceedingly rare. He was consulted by people from all over the world, and he went anywhere in the world he might find new insight."

In his lifetime, Schoenberg developed resoundingly effective alliances, creating a network for gathering information and training young scientists from around the globe. Many foreign scientists came to NIH to work with him; his advice and insight were sought constantly by health ministries, colleagues, and collaborators.

He began his association with NIH while he was still in medical school when he entered a summer research training program with the National Cancer Institute. In 1968, upon graduation from Yale University School of Medicine, he rejoined NCI for 2 years as a staff associate. He joined NINCDS in 1975 as chief of the institute's neuroepidemiology section, and became chief of the Neuroepidemiology Branch in 1984.

Schoenberg earned an M.P.H. and a Dr. P.H. from Johns Hopkins University School of Hygiene and Public Health, and an M.S. in neurology from the University of Minnesota. He completed a 1-year internship in internal medicine and a 4-year residency in neurology at Mayo Graduate School of Medicine, the latter supported by a fellowship from the then National Institute of Neurological Diseases and Stroke.

Throughout his own training and research, he always found time to share with others his knowledge, often assimilated. "He had a great facility for passing on his understanding in lecture style," said Lavine. Schoenberg was a visiting scientist or lecturer at several universities, including Yale, Georgetown University School of Medicine, and the Mayo Clinic. He was also a visiting professor in the neurology departments of universities in Mexico City, Florence, Madrid, Beijing, and Lima, Peru.

Schoenberg was the founding editor-in-chief of the journal *Neuroepidemiology* and the author of the most authoritative textbook in neuroepidemiology, *Advances in Neurology: Neuroepidemiology (Principles and Clinical Applications).*

With more than 350 publications to his credit by mid-April when cancer was diagnosed, he continued to work with his collaborators and dictate to his secretary from his hospital room. "He worked right up to the end," his secretary Sandy Chariet said, "because he had so much knowledge. He wanted to get everything down on paper."

On June 23, Schoenberg received the rarely conferred Surgeon General's Medalion at a presentation by Dr. C. Everett Koop. He was cited for his "unique contributions in the field of epidemiology and the neurosciences." Recipients of the medalion are chosen personally by the surgeon general, and Schoenberg is only the seventh person to be so honored.

He is survived by his wife and collaborator Devera Glazer Schoenberg; his son Ian Charles, 11; and his daughter Claire Jennifer, 9, all of Bethesda; as well as by his parents, Mr. and Mrs. Mitchell Schoenberg of Newark, N.J.

A memorial fund that will enable junior neuroepidemiologists to present papers at the annual American Academy of Neurology meetings has been established in Schoenberg's honor. Donations may be sent to the Bruce S. Schoenberg Fund, c/o The American Academy of Neurology, 2221 University Avenue, SE, Suite 335, Minneapolis, MN 55414.

Allergy Volunteers Needed

The Laboratory of Allergenic Products, Office of Biologics Research and Review, FDA, seeks volunteers with spring and/or fall hay fever, or allergies to dust, animals, pollens, molds or food to participate in studies to evaluate the potency of allergenic extracts.

Interested individuals should send a request for a questionnaire to Dr. Paul C. Turkeltaub, Bldg. 29, Rm. 201.
Photographer Hecht Retires

Gerald Hecht, a public affairs specialist for the Audiovisual Branch of the Office of Communications, retired earlier this month after 28 years at NIH.

Jerry (as he is known to his friends and colleagues) began working for NIH in 1959 in the Photo Section, now known as Medical Arts and Photography. Jerry says that "they needed someone to cover public affairs exclusively." He was hired to fill this need.

He covered research at NIH and in the field, producing film highlights of work done by several NIH grantees in the National Heart, Lung, and Blood Institute. He also covered assignments for the surgeon general and the secretary, DHHS.

After spending a few years at NIMH, where he helped to set up still motion picture and television facilities, Jerry returned to NIH in 1973 to work for the AV Branch in the position he held until his retirement. As a photographer there, he produced and directed films of NIH research for television, including Jennifer, which dealt with genital herpes, and more recently Rubies Alert, which was distributed this year.

In addition to making films, he also made public service announcements for TV, alerting people to health and safety hazards such as tickborne Rocky Mountain spotted fever, high blood pressure, and dental caries. Jerry also helped the press produce stories about NIH for such programs as the Today Show, 2020, and Hour Magazine.

Jerry's goal was to make NIH more accessible to the press. He accomplished this by arranging photograph sessions in the laboratories and setting up appointments between reporters and researchers. While other branches in NIH publicize research efforts via newspapers, magazines and other written publications, the AV Branch uses radio and television.

He began his career as a photographer and ended it as an audiovisual communicator. He said that making film clips for TV news was particularly challenging. The clips had to tell a story in just a few seconds and also compete with other visually interesting news stories.

While working at the AV Branch, Jerry helped support the research of Dr. Gary Hodgen, a scientist formerly at the National Institute of Child Health and Human Development. He filmed the surgical fertilization of a monkey with blocked fallopian tubes. (The monkey later gave birth to a normal, healthy infant as a result of the operation.) His photography enabled Hodgen to publicize his research and was later aired on national television.

In his retirement, Jerry plans to travel and take scenic pictures, which he hopes to sell. He will possibly collaborate with his wife, Anabel, a former writer for "Consumer," an FDA magazine. —Lisa Davis

Motorcycle Accident Claims Dr. Wittenberger's Life

Dr. Charles L. Wittenberger, 57, a microbiologist in the Intramural Research Program of the NIDR, died in a motorcycle accident on June 27.

Wittenberger was an expert in microbial physiology. At the time of his death, he was chief of the microbiology section of the Laboratory of Microbiology and Immunology.

He began his research career at NIH in 1959 as a postdoctoral fellow with Dr. Earl Stadtman in the enzyme section of the Laboratory of Cellular Physiology, National Heart Institute. It was during this period that he developed an interest in the regulation of enzyme activity and in the regulation of the pathways of intermediary metabolism.

In 1961 Wittenberger joined the NIDR, where he acquired an international reputation for his innovative contributions to microbial physiology and biochemistry, particularly with respect to the regulation of enzymes involved in transport and metabolism of sugars by oral streptococci. In a series of classic papers, he and his colleagues demonstrated that the activities of several enzymes of the Embden-Meyerhof pathway were modulated by smaller effector molecules, which were themselves intermediates of sugar fermentation.

He subsequently showed that "test-tube" theories of enzyme regulation advanced from such in vitro studies were both valid and operational in the physiologically intact cell. His most recent research concerned the mechanism of protein turnover and the role of amino acids in regulation of sugar transport by microorganisms associated with gingivitis and periodontitis. Using fructosyl transferase as the model, he showed that oxidative inactivation provided the "marking" step that identified the enzyme as a substrate for degradation by proteolytic enzymes.

During his career, Wittenberger contributed more than 50 research papers to international journals, including several chapters in scientific books. He was a member of the board of directors of the Foundation for Advanced Education in the Sciences at NIH, and in 1986 helped organize a collaborative research program with Tohoku University in Sendai, Japan, to study the bacterial physiology of periodontal disease and dental caries. Among other efforts to promote collaboration, he served as a visiting professor at the University of Puerto Rico in 1985.

A native of Ogallala, Neb., he was an accomplished pianist and talented painter. He completed his undergraduate studies at Creighton University in Omaha, and went on to receive his Ph.D. degree from Indiana University in 1959.

Wittenberger was a member of the American Society of Microbiology, American Society of Biological Chemists, and a fellow of the American Academy of Microbiology. He also served on the editorial board of Infection and Immunity, published by the American Society for Microbiology.
PMS Studies Need Volunteers

The NIMH is currently seeking women who have premenstrual syndrome for studies of that disorder.

Participants must be 18 to 45 years of age, free of medical illness and currently taking no medication, including oral contraceptives.

Participants will complete daily rating forms and participate in various outpatient protocols. Treatment by protocol will be available for eligible participants.

For further information, call Dr. Peter Schmidt, 496-9675.

The institute is also seeking female normal volunteers between the ages of 18 and 45 to participate in studies of premenstrual syndrome.

Volunteers must be free of medical illness, medication-free, including oral contraceptives, and experience no mood changes premenstrually.

Volunteers will complete daily rating forms, and will be asked to participate in one of several protocols. Pay will be in accordance with the duration of each visit and the type of protocol.

For further information, call Dr. Margaret Jenvold, 496-9675.

Sailing Club Offers Training

The R&W Sailing Association invites would-be sailors to join the Sailing Association and register for the fall basic training session on the club-owned Flying Scots. Training will be held for 6 weeks in August and September.

Registration will be held Wednesday, Aug. 5, at 9 a.m. at the R&W Activities Desk in Bldg. 31, Rm. BIW30. Classes begin Aug. 26.

For further information, call Anne Hardman, 434-5647, or Gretchen Hascall, 443-4864.

River Cruise Planned

Cruise up the Rappahannock River on Saturday, Aug. 29, at 10 a.m. from Hoskins Creek to Leedscown and Saunders Wharf. A tour of Ingleside Plantation Winery and a visit to the Steamboat Landing at Wheatland is also included. Cost for the cruise is $17 for adults and $9 for children under age 13.

Sign up at the R&W Activities Desk, Bldg. 31, Rm. BIW30.

Cancer Drug Video Conference

“Outpatient Chemotherapy: Clinical and Economic Aspects,” will be the topic of a live satellite videoconference broadcast at the ACRF Amphitheater from 4 to 7 p.m. on July 29.

The NIH is one of 22 viewing sites around the country for the interactive program, which is sponsored by the Cancer Center Network and the Association of Community Cancer Centers. The conference is made possible by an educational grant from Burroughs Wellcome Co. and is produced by Gardiner-Caldwell SynerMed and Hospital Satellite Network.

Sheila Santacroce of the National Cancer Institute will serve as moderator. Panelists include Dr. Paul N. Anderson, director, Cancer Center of Colorado Springs, Inc.; Dr. William R. Cron of St. Jude Children’s Research Hospital; Dr. Joseph R. Bertino, Memorial Sloan Kettering Cancer Center; and Michelle Goodman, of Rush-Presbyterian-St. Luke’s Medical Center, Chicago.

Developed for the benefit of oncology nurses, pharmacists and other professional personnel, the videoconference will focus on medical issues, new technologies, patient selection criteria, pharmaceutical requirements and economic aspects of implementing or expanding an outpatient chemotherapy program. Guidelines for proper dosing of cytotoxic drugs and factors important in drug administration will be discussed. Attendees who wish to submit questions should be present at 4 p.m.

NIMH Seeks Volunteers

The National Institute of Mental Health is seeking healthy men and women, ages 30-60, to participate in medical research studies. Participants must be unmedicated and free of medical and psychiatric illness. Financial compensation will be provided.

For further information, contact Dr. Luisa Hahn, 496-0500.

O’s ‘Skins Honor NIH’ers

The R&W Association has tickets available for the following events held in recognition of NIH employees during the Centennial year: Aug. 7: Baltimore Orioles vs. Texas Rangers ($5.75 for upper reserved seat). Aug. 14: Washington Redskins vs. Pittsburgh Steelers ($20).

Free tote bags for employees will be offered at both games.

Tickets may be purchased through the R&W Activities Office, Bldg. 31, Rm. BIW30, the R&W Gift Shops in Bldg. 38A and Westwood Bldg.
Congressional Breakfast Focuses on Aging

By Blair Gately

Three biomedical researchers briefed members of Congress and their staff members on "Advances in Research on Aging" at a recent congressional breakfast held on Capitol Hill.

Dr. Robert Katzman, professor of medicine and chair, department of neurosciences, University of California, San Diego, updated the audience on developments in Alzheimer disease.

Alzheimer disease is of increasing significance to an aging society, Katzman said. "There have been a number of important research advances related to Alzheimer's, but we still don't know what causes the disease and it is not easy to diagnose."

He estimated that medical care costs for Alzheimer patients are approaching $40 million per year in the United States.

Dr. William Peck, Simon professor and cochairman, department of medicine, Washington University School of Medicine, spoke about osteoporosis. The age-related disorder is a condition in which bone mass decreases, causing bones to be more susceptible to fracture.

"Osteoporosis affects between 15 and 20 million Americans, including one in three postmenopausal women and virtually all the elderly," he said. "Osteoporosis will affect 8 percent of women who are now 35 years old."

Treating the disease involves restoring bone tissue, according to Peck, who pointed to "promising new discoveries from basic research" in that area, including bone growth factors, physical exercise, estrogen and bone loss blockers.

"We want to eliminate osteoporosis as a public health problem," Peck said.

The annual price tag for care for those with osteoporosis is between $7 and 10 billion, according to Peck.

Dr. Elkan Gamzu, associate director, clinical science, Parke-Davis Pharmaceutical Research Division, Warner-Lambert Company, stressed the importance to drug companies of collaborating with universities and research institutions. "Research provides the substrate for drug development," he said.

Dr. T. Franklin Williams, director, National Institute on Aging, greeted Rep. Connie Morella of Maryland's 8th District at a recent Congressional Breakfast that addressed research on aging. The breakfast was one of a series of Centennial events acquainting Congress with recent progress at NIH.

Sept. 11 Is Employee Day

Employees who keep an eye on their office mail boxes in the coming weeks will be pleased to learn that they have been invited to the first Employee Recognition Day, a Centennial event scheduled for Friday, Sept. 11. It is the institution's way of thanking the people who have contributed to a "century of caring."

The event, which will feature food, games, music and entertainment, will be held in the grassy area at the southwest corner of the campus, near Lister Hill Center and parking lot 41B. In case of rain, a more limited version of the festivities will be held in the courtyard bound by the A and B wings of Bldg. 31.

Assuming the sun shines, the day will feature a variety of ethnic foods on sale, music from several bands, games, balloons, door prizes and free desserts. NIH Director James Wyngaarden will address employees, as will other dignitaries. Various NIH organizations will erect booths, including the Fitness Center and NIH cultural groups.

The event is scheduled to begin at 11 a.m. and last until 2:30 p.m. Employees are advised to wear suitable clothing to work that day. Campus buses and vans will transport workers to and from the picnic grounds.

The Office of Centennial Activities is sponsoring the event, in collaboration with the Division of Equal Opportunity and NIH cultural groups.

Keep an eye on the Record for more details. Also, watch for upcoming announcements of an Open House that NIH will hold Oct. 4-5 for families of employees and the public.

NIDDK Plans Workshop on Interstitial Cystitis

NIDDK will sponsor a workshop on Aug. 28-29 to focus scientific attention on interstitial cystitis, a painful, disabling bladder disorder often accompanied by scarring and stiffening of the bladder wall.

The August workshop is one of various activities organized by NIDDK under its new research initiative in interstitial cystitis (IC), which is aimed at increasing scientific understanding of the disease and developing effective ways to diagnose, treat, and prevent it.

IC is a chronic, debilitating disorder marked by a decreased bladder capacity and a frequent, urgent need to urinate. Researchers do not know how many people suffer from IC, although adult women are most often affected. While its symptoms resemble those of a urinary tract infection, urine cultures for bacteria consistently prove negative. IC is difficult to diagnose, and scientists are not even sure whether the condition constitutes one disease or results from various disease processes.

For more information, call Dr. Charles Rodgers, 496-7574.