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U.S. Department of Health and Human Services
National Institutes of Health

"The Second Best Thing About Payday"

The NIH Record

Free Time and Services Given

NIH Docs Answer Call to Help The Needy of Washington

By Anne Barber

A cry for help was mailed recently to hundreds of local physicians residing in the Washington area asking for aid in caring for the needy by volunteering time and services to the Zacchaeus Medical Clinic. That letter was signed by Dr. Allen L. Dollar, a volunteer physician at the clinic and a senior staff fellow working in NHLBI's Pathology Branch.

Dollar has worked at the clinic, on and off, for the past 13 years. He began volunteering while an undergraduate student at Georgetown University and worked there for 4 years as a physician's assistant before going off to medical school in Baltimore. Returning to the Washington area 4 years ago, he rejoined the clinic.

Zacchaeus is a private, nonprofit clinic operated entirely on private donations. It provides free physician visits, free laboratory work and free medication to the poor.

"When I joined the clinic in 1977, the majority of the patients were prostitutes from the 14th St. corridor and homeless people from the nearby shelters," says Dollar. "It was

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NIDCD Carries Communication Lecture to Capitol Hill

By Carla Garnett

Saying what you want is always easier than getting what you want, right? Wrong. The most recent lecture of the Medicine for the Public on the Hill series highlighted simple communication skills taken for granted by most Americans but coveted by more than 14 million children and adults in the United States.

Dr. Judith Cooper, program administrator in the National Institute on Deafness and Other Communication Disorders, discussed "When Talking and Listening Aren't Easy," a lecture cosponsored May 4 by Sen. Tom Harkin (D-Iowa) and NIH's Division of Legislative Analysis.

The talk, held in the Dirksen Senate Office Bldg. on Capitol Hill, was the third in a spinoff series that debuted last summer when organizers of the Clinical Center's popular Medicine for the Layman lectures began presenting selected talks to interested congressional employees.

Cooper began her lecture by defining terms: *Speech disorders* involve problems with speech

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A mounted member of the U.S. Park Police makes his way through a crowd of about 1,000 protesters outside Bldg. 31 during a demonstration May 21 by gay rights activists. Police arrested 82 people both on campus and at an NIH rental building in Rockville.

'Storm the NIH'

Activists Protest Pace of Federal AIDS Research

By Rich McManus

About 1,000 activists protesting the alleged slow pace of federal research against AIDS spent the morning of May 21 marching on the NIH campus and at three NIH rental buildings. Eighty-two demonstrators were arrested, including 21 who broke into the office of Dr. Daniel Hoth, director of NIAID's Division of AIDS, at the Control Data Building in Rockville. Small groups also gathered at the Federal Bldg. in Bethesda and at Executive Plaza in Rockville.

Chanting slogans and meandering from one campus building to another, the main group of NIH protesters engaged in various forms of theater, including impromptu skits, songs and dances.

A mass "die-in" on the lawn of Bldg. 1 closed the demonstration as ranks of uniformed officers, some on horseback, protected NIH headquarters; a splinter group of protesters stopped traffic on Rockville Pike briefly, marching with locked arms and banners.

Much of the NIH campus was closed to nonemployee traffic and many workers stayed home as the protest, dubbed "Storm the NIH" by organizers from the AIDS Coalition to Unleash Power (ACT UP) took place from 7 a.m. to noon.

The event was timed to coincide with an NIAID advisory council meeting at which research directions for the institute—NIH's lead AIDS research component—were discussed.

"We have a great deal of empathy with those who are frustrated with the pace of biomedical research," acknowledged Dr. Anthony Fauci, who in addition to directing NIAID is also NIH associate director for AIDS research. "But critics of the pace of HIV research don't understand the nature of biomedical investigation. Progress against HIV has actually been unprecedented in the history of medicine."

Fauci and Hoth were the objects of several effigies and posters; one activist carried a bloodied Halloween mask that bore Fauci's name.

"I'm not angry or upset at them," Fauci said at a press conference in Wilson Hall at the end of the protest. "One day of disruption on campus is inconvenient, but it is not going to have an effect on what we do. I'm concerned, however, that protests like this will have a demoralizing effect on the researchers in the trenches. It's no fun to work 18 hours a day and have someone put up a sign saying you're a murderer.

"I thought the protest was interesting the-

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NIDCD

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sounds, intonation, pitch and fluency, and affect more than 8 million Americans. In addition, more than 6 million children and adults in the United States have *language disorders*—difficulty communicating and comprehending words and sentences.

Cooper focused on three specific speech and language disorders—stuttering, specific language impairment (slow talking) and aphasia, which results from brain damage after a stroke.

Stuttering dates back thousands of years and is characterized by repetitions and hesitations as well as nonspeech behaviors such as rapid eye blinks or head movements.

Notable stutterers include the late British prime minister Sir Winston Churchill, scientist Sir Isaac Newton, early American politician Thomas Jefferson and country and western singer Mel Tillis. Stutterers are generally male and may have a family history of the disorder. It is estimated that more than 1 million Americans stutter.

"Although stuttering was once thought to be an emotional disorder, that theory has been discounted and is no longer accepted," said Cooper, who explained that any personality differences are the effect, not the cause of stuttering.

According to Cooper, stuttering can have a profound impact on the self-esteem, employment opportunity, academic performance and social activity of the stutterer. "Many stutterers will avoid altogether situations where they may have to speak," she said.

Many children, during the preschool years, experience a period of dysfluency, Cooper continued. "Most pass through this phase and develop normally fluent speech. Others have an increase and persistence in the periods of dysfluency.

"However," she noted, "it is estimated that 50 percent or more of all children who stutter will no longer be stuttering by age sixteen."

Specific language impairment (SLI), a childhood language disorder, is normally identified when toddlers are learning to talk and understand words.

Cooper said that attentive parents may be able to notice "an inordinate delay" in the child's development of first words or word combinations.

"Basically, when parents are worried," Cooper emphasized, "there's usually a good reason for it. If you suspect your child is delayed in developing speech or language skills, ask questions and get help."

Most children with SLI have normal intelligence, hearing, social and emotional skills. Boys are more likely than girls to have SLI, which also tends to run in families.

NIDCD director Dr. James B. Snow Jr. and program administrator Dr. Judith Cooper paused briefly for a photo before Cooper's "Medicine for the Public" lecture on speech and language disorders given recently in the Dirksen Senate Bldg. on Capitol Hill.

"Many (with SLI) are later labeled as learning disabled," Cooper said, urging parents who identify problems to get the child diagnosed early. Found early, communication difficulties can often be corrected with speech and language therapy.

The final disorder she explained was adult aphasia, or the language problems following stroke.

Cooper called aphasia "one of the most devastating effects of stroke" and likened it to a kind of disorienting travel: "Imagine yourself suddenly, involuntarily wandering in a foreign country, unable to understand the language and unable to communicate your simplest needs. That's what having aphasia is like. It's frustrating and confusing."

There are several types of aphasia; Cooper stressed three: global, in which widespread brain damage impairs nearly all aspects of language; Broca's, which affects mainly verbal communication skills, causing patients to produce inarticulate and ungrammatical speech; and, Wernicke's, in which language may be articulate, fluent and grammatical, but have little meaning or context.

Twenty to thirty percent of stroke victims will be aphasic; more than 1 million Americans have some permanent form of aphasia.

"Certainly, there are some aphasics whose recovery is rapid, dramatic and complete," said Cooper, explaining that younger patients seem to recover better and faster. "But for others, long-lasting difficulty with speech and language will remain even with treatment." □

NIMH Needs Volunteers

NIMH seeks volunteers to participate in a study using an innovative treatment for depression. All services and medications are free. For more information call 496-6981 or 496-2141. □

Use Your Voice for Success

A class titled "Voice for Success for Professional Credibility" will be held July 9 and 16 in Billings Auditorium, Bldg. 38. It is designed to give each participant new behaviors for dealing with presentations and difficult interpersonal situations. Individual coaching with video feedback is provided. Cost is $200 for two mornings; application deadline is June 13. For more information contact Georgette Thompson at the NIH Training Center, 496-6371. □

NCI Offers Prevention Fellowship

The NCI has a unique opportunity for M.D.s and Ph.D.s interested in cancer prevention and control to train in this emerging discipline. The Cancer Prevention Fellowship Program lasts 2 to 3 years and offers independent research opportunities within the Division of Cancer Prevention and Control. An academic course covering the current principles, methods and practices of cancer prevention and control is also provided. Many opportunities exist for additional training and travel. Applications are due Sept. 1; fellows start on July 1, 1991. For more information call Barbara Redding, 496-8640. □

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Hallum Named OSI Director

Dr. Jules V. Hallum has been named director of the Office of Scientific Integrity, part of the Office of the Director, NIH; the appointment was effective Apr. 8.

Hallum comes to NIH from his position as professor and chairman of the department of microbiology and immunology at the Oregon Health Sciences University in Portland.

The OSI conducts inquiries and investigations on instances of possible misconduct in science and assists universities in the development of their programs to promote the ethical conduct of science.

Hallum became a member of the ad hoc committee on ethical matters for the American Society for Microbiology in 1983. While on this committee, he helped draft the ASM's first Code of Ethics and Canon of Ethics. In 1984, he became chairman of the permanent ASM committee on ethical practices and led the committee in establishing the ASM's ethical review process. In addition to resolving allegations of misconduct, he has written and proposed policies for the ASM concerning criteria for authorship to be used by journals and concerning the length of time raw data must be maintained for published papers.

Also, Hallum is arranging for integrated membership between the ASM publication board and the committee on ethical practices to improve oversight of possible misconduct in submitted or published manuscripts.

He joined the staff of OHSU in 1973. He earned his Ph.D. in 1952 at the University of Iowa, where he was honored with a dean's fellowship. □

CC Pharmacists Claim New Posts

Two Clinical Center pharmacy employees were recently elected to the United States Pharmacopeial (USP) Convention, Inc.'s new committee of revision at the 1990 quinquennial meeting of USP held in March.

Dr. Joseph F. Gallelli, chief of the pharmacy department, and Dr. Paul Kennedy, director of analysis and quality control in that department, will serve on the drug standards division of the committee until 1995.

USP, an independent, nongovernmental, nonprofit organization that sets legally enforceable standards for U.S. drugs, was established in 1820. The standards, prepared by the committee of revision, are published in the *United States Pharmacopeia* and the *National Formulary*. □

Mammography Screening Change

The location of the mammography screening offered by the Occupational Medical Service for June 19 has been changed from the Bldg. 31C parking lot to the Bldg. 10C shuttle turn. This notice amends information printed in the last issue of the *Record*. □

Call for Posters by June 19

Fourth Annual NIH Research Day Features New Program

This year, the fourth annual NIH Research Day will feature several new events. The activities will begin Monday, Sept. 10 with a NIH Alumni Day Symposium sponsored by NCI. Titled "Leukemia 25 Years Later," it will honor Drs. Emil Frei and Emil Freireich. The intramural activities will begin with a featured symposium "AIDS," chaired by Dr. Anthony Fauci, from 3:30 to 5:30 p.m.

A cheese and beverage poster session will follow the AIDS symposium from 5:30 to 7:30 p.m. Monday, Sept. 10. The posters will be located in the NIH Research Day tent to be erected on parking lot 10D behind the Clinical Center by Convent Dr. Another poster session will be held from 10 a.m. to 1 p.m. in the tent on Tuesday, Sept. 11.

Individual scientists interested in presenting posters should prepare a short, one-paragraph abstract of what they would like to present. The abstract, title of the poster, names of authors, poster topic and institute should be sent by June 19 to: NIH Research Day Chairman, Dr. John I. Gallin, Director DIR, NIAID, Bldg. 10, Rm. 11C103, 496-3006, Fax 301-402-0166.

Poster topics are as follows: molecular genetics, protein chemistry, cell development and function, immunology, infectious diseases, AIDS, virology, animal models of disease, neurobiology, oncology, methods.

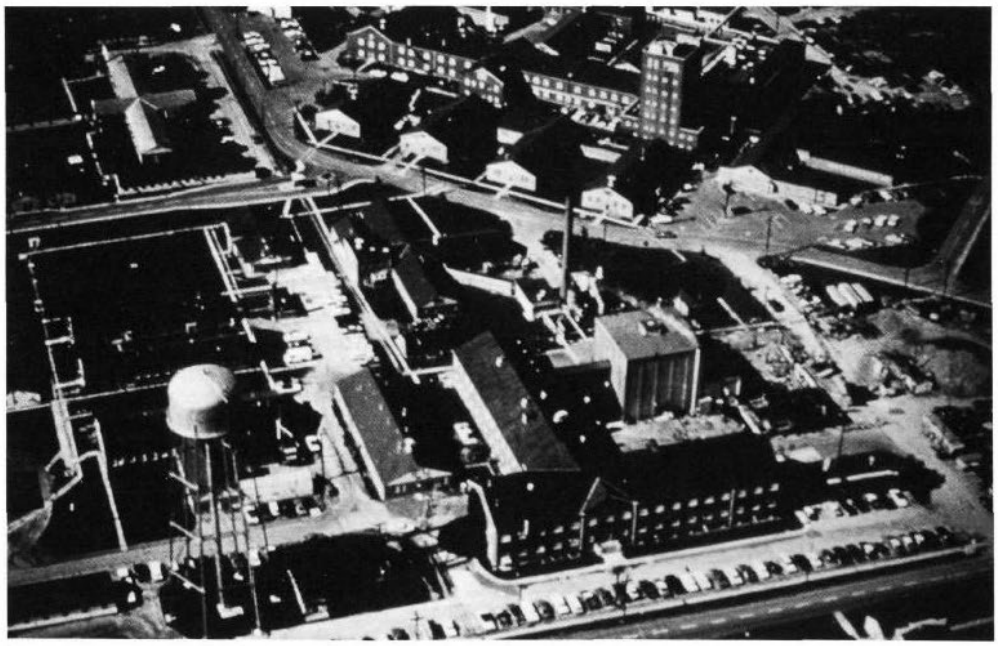
Because space is somewhat limited, it may be necessary to make poster selections, depending on the number of responses received.

Thirty-four workshops are scheduled for Tuesday, Sept. 11 in conference rooms throughout NIH. These are designed primarily for people actively involved in research. The workshop topics and presentations will be published later in the summer.

The workshops will be held 8:30-11 a.m. and 1-3:30 p.m. From 3:30 to 5:30 p.m. there will be featured symposia on "Gene Transfer and Potential for Gene Therapy," chaired by Dr. Arthur Nienhuis, NHLBI; "Frontiers in Neurobiological Research," chaired by Dr. Daniel Alkon, NINDS; "Cell Adhesion Molecules: Role in Development and Immunity," chaired by Dr. Ethan Shevach, NIAID.

NIH Research Day will end with a free picnic and music near the Research Day tent from 5:30 to 8 p.m.

Frederick Cancer Research Facility Renamed



NCI's executive committee has approved a name change for the NCI-Frederick Cancer Research Facility. Effective immediately, the new name is the NCI-Frederick Cancer Research and Development Center (NCI-FCRDC). NCI-FCRDC's commercial telephone exchange number will also change in June 1990. The current operator number, (301) 698-1000, will change to (301) 846-1000. Callers will be able to reach all extensions using the 846 exchange. The FTS exchange will continue to be 978.

ZACCHAEUS

(Continued from Page 1)

very rare to see a patient who was employed. Over the past years, however, the prostitutes have almost disappeared from 14th St. and the majority of our patients are working.

"Low-paying jobs do not come with health benefits," Dollar continued. "The government programs are designed for the elderly, disabled and the young. The working poor are desperately in need of access to primary medical care.

"The working poor have an income, as do some of the elderly folks we see, but repeated doctor visits and ongoing medications needed by these patients would be financially catastrophic without the clinic's services. The majority of the patients using the clinic have chronic illnesses such as diabetes, high blood pressure and arthritis."

Dr. Allen Dollar smiles as he talks about his volunteer work at the Zacchaeus Medical Clinic. He continues to give 1 to 2 days a month providing care to the needy as well as time serving on the clinic's professional advisory committee.

Dollar also serves as a member of the clinic's professional advisory committee that establishes policies used at Zacchaeus. "Recently, the committee has recommended going with a team approach to improve our continuity of care," he states. "That is one of the reasons we are asking for more help."

He explains, "With the team approach, the same group of members (physicians, lab assistants, pharmacists, physicians' assistants, and patient advocates) will be working together on regularly assigned nights. They will get to know one another and this in turn will lead to better care for our regular patients."

Dollar tells the story of a man in his fifties who is one of the clinic's regular patients. "While serving time in prison, the man underwent heart bypass surgery. After his release, he was placed in a halfway house. He needed followup care so he came to the clinic. Over the years, he has become our friend and we are proud to say he is now employed, moved out of the halfway house and has his own apartment.

"Really, there are a large number of patients who fall through the holes in our health safety net," states Dollar. "Our biggest problem is that the cost of medication is so high. At the clinic, we provide free medication. So, even if some of these people have Medicare, which means they can go and receive medical care elsewhere, most cannot afford their cost of their medication. Unfortunately, Medicare does not cover the cost of medication.

"All the professional advice in the world will not help you if you cannot afford the treatment," he says. "Our chronic patients sometimes take several medications daily, which can be very expensive."

According to Dollar, one of the goals of the clinic is to get enough money to hire a full-time physician for daytime hours. "In the past, the clinic had a full-time physician's assistant, a priest who volunteered his time and for 2 years we did have a full-time physician. We have a large number of people, especially the elderly, who find it difficult to get to the clinic at night. Also, there are more people out there than we can fit into our night clinics. We are in real need of the position."

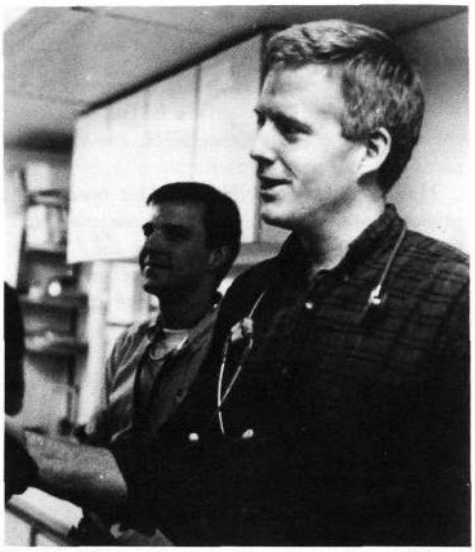
Dollar is quick to point out that NIH has always been supportive of the clinic because it gives physicians who are researchers a chance to keep their hands in clinical care.

"One of the nice things about the clinic is that the D.C. government provides malpractice insurance for volunteers who work there," states Dollar. "So there are no out-of-pocket costs."

Much of the care Dollar provides at the clinic is general. "I do get cardiology referrals from other physicians at the clinic. Sometimes the tests require technical equipment that we do not have on hand and I have to refer them out. We will always have to depend on physicians who allow us to refer patients to them. We have a real need for this kind of physician also. They do not charge the referrals, they take care of them for free. As with the clinic, there is no financial criteria—nobody is asked and no payment is ever requested."

Dr. Teresa Jones of NIDDK's Molecular Pathophysiology Branch has been a volunteer two times a month for the past 3 years at the clinic. Her specialty is endocrinology but, like Dollar, she does mostly general medicine at Zacchaeus.

Before joining NIH, Jones worked at an Afghan refugee camp where the Afghanistanis were taught to become medics and perform general medical care. "I enjoyed doing that and I wanted to continue to keep up my general medicine skills. I did this between my residency and fellowship here at NIH. I've been at NIH now for more than 3 years."



Dr. Jim Flanagan (r) and assistant discuss followup care with patient. Flanagan is a senior staff fellow in NICHD's Laboratory of Developmental and Molecular Immunity. He has been at NIH for 4 years and a volunteer at the clinic for the past 2. Flanagan works in the field of molecular research on gene expression but, he says, "I really enjoy working at the clinic."

Dr. Josh Zimmerberg, an investigator in NIDDK's Laboratory of Biochemistry and Metabolism, has been at NIH for 8 years and has worked in the clinic for the past 6 years.

Prior to joining Zacchaeus, Zimmerberg worked with the Community for Creative Non-Violence and made house calls to shelters. "I was providing medical care to the homeless but when the Georgetown shelter closed, I shifted my energy to Zacchaeus.

"I find I can do a lot more for the individuals in a clinical setting with a laboratory at my disposal than I could accomplish in a shelter setting," he says.

"It has been a very satisfying place to work, very stable. The clinic has been in existence for 16 years. I work on the average about 4 hours a night, once or twice a month.

"We have a lot of persons coming from the shelters," Jones adds. "We also see a lot of elderly on fixed incomes along with new employees who need physicals before starting a job, especially new immigrants."

"Working at the clinic gives me an opportunity to take care of patients in a setting where the welfare of the patient is the primary focus," says Zimmerberg. "As a full-time researcher, I don't get to do that kind of thing too much. I practice medicine for the gratification of taking care of people, and in a free setting, I have more time for each patient."

Zimmerberg's specialty is asthma since his research deals with the mast cells that cause it. "So I usually see the asthmatic patients that come in that night or have been referred to me from other nights.

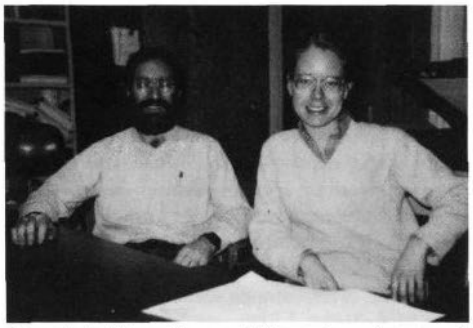
"I have seen some real regulars," he continues, "people who have been coming to the clinic for 15 years. I would say on an average night that 80 percent of the people have been here before."

A regular patient of Jones' was a woman who showed symptoms suggestive of Cushing's disease. "But every time tests were done, they came up negative. Now she is enrolled in a study here at NIH relating to the disease."

Delaney Ruston, a research assistant in the same lab as Zimmerberg, has been at the clinic for 1½ years—the same amount of time she has been at NIH.

"I went to the clinic basically because Josh, Teresa, and I were interested in the nutritional habits of low-income populations. Because there were no diet histories available, I began taking histories myself. Yet I just couldn't be neutral so rather than just collect data I began doing nutritional counseling and, a few months later, I set up a Wellness Workshop. I held the workshops once a month, at a church across the street from the clinic. I would prepare a healthy lunch, talk about nutrition, and lead the patients through an aerobic workout.

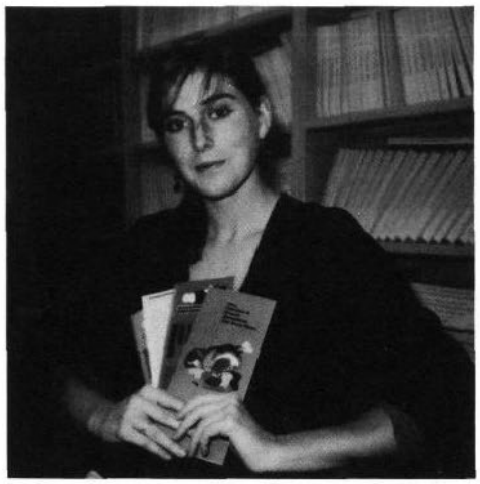
"Now," she continues, "I am a patient advocate at the clinic three times a month." As a patient advocate Ruston sees the patients before they see a physician. "I take the patient's history and vital signs, order routine tests, report findings to physicians, sit in during the physician's exam and follow the patient all the way through the visit.



Drs. Josh Zimmerberg and Teresa Jones become animated when talking about their work at the clinic. Each volunteers time once or twice a month to help provide medical care to the poor.

"Zacchaeus Clinic is great, especially if you want to work with a physician. It is a really great opportunity. I came from California and at the Haight-Ashbury Clinic in San Francisco the med students do what the patient advocates do here."

Ruston continues, "It is a great opportunity for people who are thinking of medicine as a career, to get hands-on experience. They also give you leeway in letting you develop and implement new programs. For example, the staff fully supported my efforts in developing the Wellness Workshop. I conducted the workshops for about 6 months and also stacked the clinic shelves with nutritional information to be handed out.



Delaney Ruston, a patient advocate at the clinic, displays some of the nutrition brochures she hands out to the patients.

"In the wellness clinic we had about 12 people ranging in ages from 40 to 60 who attended regularly. A couple of people were able to lose weight and people did begin to exercise more."

Heidi Hagman, a Howard Hughes-NIH scholar, joined the clinic in September. She attended the training session offered by the clinic to become a patient advocate.

Hagman, a third-year medical student from Oregon Health Sciences University, said she liked working at the clinic because, "I had done a 6-week rotation in family medicine in my studies and I didn't want to lose my clinical skills. This is a good way to keep in touch with that.

"I saw they needed volunteers," she continued, "and I had done other volunteer work back home. The clinic does a lot to help the high mortality rate of the working poor. I also like that you can work your own schedule—that is a nice thing."

Through the efforts of several NIH doctors, Renee Wallis, coordinator of development for the Zacchaeus Medical Clinic, came to NIH recently to discuss the clinic, answer questions, and, she hoped, to recruit new volunteers.

In a handout distributed by the clinic, Wallis states that teamwork and creative response remain the strong suit at Zacchaeus. "Our first and foremost responsibility is to provide quality medical care to the poor," she says.

If you would like to volunteer time to the clinic, please contact Renee Wallis, 265-2400. □

Math Modeling Aids Research

Mathematical modeling as a component in physiological research protocols offers biomedical researchers a powerful tool for producing more efficient experimental design and more informative results, said Dr. Judith K. Gwathmey, Harvard Medical School, at a new NIH seminar series.

Speaking May 9 in Lipsett Amphitheater at the first biomedical modeling seminar sponsored by the National Center for Research Resources, Gwathmey discussed the applicability of mathematical modeling in cardiovascular research. She illustrated her point with data from her own collaborative work with mathematicians in her studies of heart muscle contraction. Gwathmey, who has doctorates in physiology and veterinary medicine, develops animal models and also studies human heart tissue derived from hearts obtained immediately after removal from patients receiving heart transplants.

"Animal models of human biology are absolutely essential in biomedical research," Gwathmey said. "Through computational science one can greatly facilitate a bringing together of information derived from these models, overcoming the imperfections caused by differences in physiology.

"Of course," she added, "like animal models or any other models, computer-generated models are only as good as the input.

"It is essential that physiologists and biophysicists form teams to explore the wealth of information available from their specialties," Gwathmey said. "That will provide a pathway for models of human disease that can be used to the fullest."

Gwathmey is in the cardiovascular division, department of medicine, Harvard Medical School, and Beth Israel Hospital, Boston.—Jim Doherty. □

Weekend Tickets for Orioles Games

R&W has tickets available for every Baltimore Orioles home game played on a Saturday or Sunday. See the O's battle New York, Boston, Chicago, Oakland and other great teams. Don't let the season pass without catching a game or two. For more information contact the R&W Activities Desk in Bldg. 31, 496-4600. □

Children's Beginning Judo Class

Want your child to learn discipline, get into shape and have fun this summer? The NIH R&W Judo Club is offering a beginners class for children 6 and older on Tuesday evenings from 5:30 to 6:30, to run from June 19 through Aug. 14. The cost is $35. Contact Sherri Bale, 496-4375 at work or 657-2386 at home. □

Steinert Named Chief

NIAMS Adds New Laboratory of Skin Biology, A Variety of Disorders To Be Probed

By Lauren Dickie

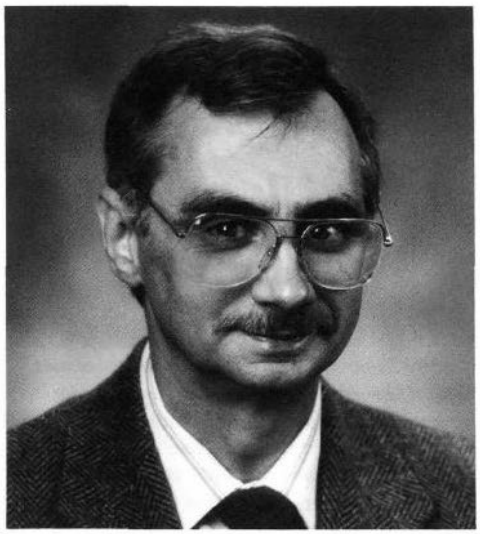
The National Institute of Arthritis and Musculoskeletal and Skin Diseases has recently established a new intramural laboratory to carry out basic research on the skin. Under the direction of Dr. Peter M. Steinert, the new Laboratory of Skin Biology will conduct fundamental studies that explore the nature and function of proteins responsible for the maturation of the epidermis, the skin's outermost layer.

"This is an effort to establish a strong presence of solid laboratory-based research in the area of skin biology," said Dr. Henry Metzger, director of the Intramural Research Program at NIAMS. "Research findings made at the Laboratory of Skin Biology will add enormously to our understanding of normal and abnormal skin development," added Dr. Lawrence E. Shulman, director of NIAMS, noting that "knowledge of skin biology at the molecular and genetic levels is essential for the development of new strategies to treat skin diseases."

The epidermis is a continuously self-renewing tissue less than an eighth of an inch thick. A slice through the epidermis reveals four cell layers—basal, spinous, granular and squamous. Each layer reflects a profound change in an individual epidermal cell's biochemistry and shape as it is pushed toward the skin surface. Round basal cells at the bottom of the epidermis rapidly divide, producing cells that eventually become the flattened squamous cells that die and flake off at the surface, or stratum corneum. The factors responsible for the changes associated with each cell layer are called differentiation markers. About 90 percent of the proteins produced in the epidermis are differentiation markers called keratin, filaggrin and loricrin. These proteins are under intense molecular scrutiny at the laboratory.

To study keratins, the laboratory is developing transgenic mice, animals with human genes inserted into their own genetic material. The mice then express human proteins. With this model, researchers hope to learn how the genes for keratin production are turned on and off, or regulated. Another effort, said Steinert, "is to use this technology to explore the function of the keratin genes by making mutations to the genes and seeing what effect they will have, if any, on the skin of the mouse host." In other work, Steinert hopes to explore the molecular structure of keratins and their gene locations on chromosomes 12 and 17.

The laboratory is also interested in the molecular interaction of keratin with filaggrin, a protein discovered in 1977 by Dr. Beverly Dale at the University of Washington and



Dr. Peter Steinert

named in 1981 by Dale and Steinert. Filaggrin appears essential in arranging keratin filaments. According to Steinert, "the filaggrin-keratin complex is like reinforced concrete. Filaggrin is a cementing matrix that surrounds rods of keratin." This arrangement gives the squamous cell its elongated, flattened appearance. "We suspect that much of the changes of shape are due to the alignment of the keratin filaments in a plane parallel to the surface of the epidermis. The function of the filaggrin is to somehow organize that orientation," Steinert said.

Basic research in skin biology at the laboratory and elsewhere is providing tantalizing clues to molecular aspects of skin diseases such as epidermolytic hyperkeratosis, a keratinizing disorder in which infants are covered with thick, horn-like scales at birth. "In this disease, it is quite clear that filaggrin metabolism is wrong," comments Steinert. The molecular mishap occurs in the granular layer. Viewed under a microscope, this layer appears uncommonly thick and contains greatly enlarged keratohyalin granules. Laboratory studies could help determine whether there is a problem with the biosynthesis of profilaggrin or with its subsequent processing into functional filaggrin molecules.

Work at the laboratory will undoubtedly improve the understanding of psoriasis, a disease that afflicts approximately 3 million people. Normally, the epidermis renews itself once a month. In psoriasis, the epidermis turns over in 3 to 4 days. "It's a simple temporal problem," according to Steinert. "There is simply not enough time for the cells to mature properly, to make all the proteins in a normal, orderly manner. And that's the reason why you end up with an enlarged, raised blemish, a red itchy scale characteristic of psoriasis." Transgenic mice developed at the laboratory could provide a badly needed model for this disease.

An internationally recognized leader in skin research, Steinert received his B.S. in biochemistry, organic chemistry and psychology in 1965 from the University of Adelaide in Australia. In 1972, he received a Ph.D. in biochemistry from the same institution. From 1973 until 1989, when he joined NIAMS, Steinert worked in the Dermatology Branch of the National Cancer Institute. He has coauthored more than 100 papers and is a member of the American Society for Cell Biology, the American Society for Biochemistry and Molecular Biology and the Society for Investigative Dermatology. □

Beware of Campus Fraud

Once again the NIH Recruitment and Employee Benefits Branch has been made aware of possible fraudulent activities on campus.

This time the case involved a sales representative from a Florida-based company promoting what was supposed to be a high-interest-earning savings account for an out-of-state bank. As it turned out, the employees involved had signed up for a life insurance policy, *not* a savings account.

In addition, these employees were persuaded to sign direct deposit forms. While this company is apparently a valid business enterprise, the sales representative was not completely open about exactly what he was selling. But, the bottom line is that he should not have been on the NIH campus soliciting business in the first place.

Please remember that it is not legal to solicit on campus without a permit, and according to NIH police, a permit to solicit on government property would not be issued.

This is not the first time this has happened and it probably won't be the last. NIH is a very large, open campus and it is impossible to keep off everyone who is not supposed to be here. So if you are approached by a sales representative, you can be certain he or she is not on campus legally. Just tell them you are not interested, then as soon as possible report them to the NIH police so that they can be escorted off campus.

The best defense against these shady dealings is common sense. If the deal sounds too good to be true, it probably is. Remember, solicitation on government property is illegal. □

NIH Credit Union Celebrates Golden Anniversary, 1940-1990

A few days before Christmas in 1939, a handful of NIH employees gathered in Bldg. 6 and decided to establish a credit union. On Jan. 11, 1940, nine workers got together and, with $75 in assets, formally established the NIH Federal Credit Union (NIH FCU).

"Money was tight in the thirties," recalls Howard F. Brubach, who was the 38th NIH'er to cast his lot with the member-owned cooperative. "I was in industrial hygiene, and that involved travel. We figured that a credit union would help on cash advances—that was the basic reason to start it."

Sharing space with a telephone operator's office just off the lobby of Bldg. 1, the credit union attracted some 338 members out of 1,167 employees in its first year. Employees would make deposits of as little as a quarter at a time; the captain of the guard office in Bldg. 1 would enter the deposit in a ledger.

On May 10, 1990, the credit union celebrated its 50th year of service with a ceremony in Wilson Hall. Brubach, who had been present at the 25th anniversary, returned with his colleague Harry Diehl to mark the occasion.

"It has come a long way and it's a wonderful organization, believe me," said Brubach, who spent 50 years at NIH. "I've been with it since the start."

"I know the credit union is great," said Diehl, who was the 60th employee to join the union and who retired in 1974 after 40 years of service to NIH. "But so is NIH."

Congratulations abounded as eight speakers, including NIH acting director Dr. William Raub and a former U.S. senator (Roger Jepsen of Iowa, now chairman of the National Credit Union Administration) rose to honor the occasion.

Currently boasting 22,000 members and more than $100 million in assets, the credit union is "now a healthy, growing, stable financial institution," said Lindsay Alexander, president and chief executive officer of NIH FCU.

"Attracting new members and improving services are two main goals for us today," she said. "Renewed spirit and diligence are the themes of our fiftieth year. My greatest hope is that, 50 years from now, we'll look back and have accomplished our goals and much, much more."

"NIH feels a deep privilege in hosting the credit union," said Raub. "It is a first class institution whose responsiveness is second to none."

Representatives of the credit union's two off-campus outposts—Suburban Hospital and Sibley Memorial Hospital—were also on hand at the catered affair, which transformed into an open house for employees once the speeches ended. Guests received commemorative coffee mugs and key rings emblazoned with the NIH FCU's new emblem—a growing tree.

With almost a century of NIH experience between them, Howard F. Brubach (l) and Harry Diehl helped the NIH Federal Credit Union celebrate its golden anniversary May 10. The two friends and colleagues were among the first to join the credit union 50 years ago and were on hand for the 25th anniversary as well.

"The credit union members are your tree's roots," observed Jepsen, who served in the Senate from 1979 to 1985. "The credit union's people-before-dollars philosophy comes to the fore nowadays. We are the financial front porch and picket fences of our communities."

"The NIH credit union has stood as a beacon of hope for financial needs, just as NIH has stood as a beacon of hope for those with physical needs," said Kenneth Robinson, president of the National Association of Federal Credit Unions.

NIH veteran Diehl, a native of McGaheysville, Va., who remains active as a minister and chemist, regaled the audience with tales of NIH a half century ago.

"I'm just a farm boy," he cautioned before embarking on a rambling tale of how he developed more than 500 new compounds during his NIH career, including a new process for preparing 2-deoxyribose, a sugar found in DNA. Diehl was honored in 1958 for work that supported development of the Salk polio virus vaccine.

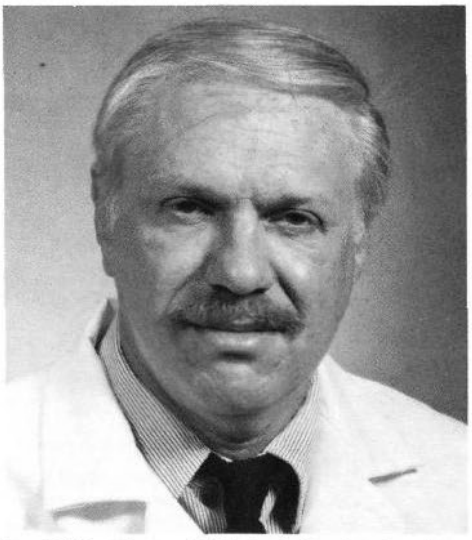
"I'm working on cures for cancer and arthritis right now," he continued.

In somewhat less exuberant tones, Dr. Harley G. Sheffield, who has been affiliated with NIH FCU since 1969, observed that the credit union has grown slowly and not without difficulties.

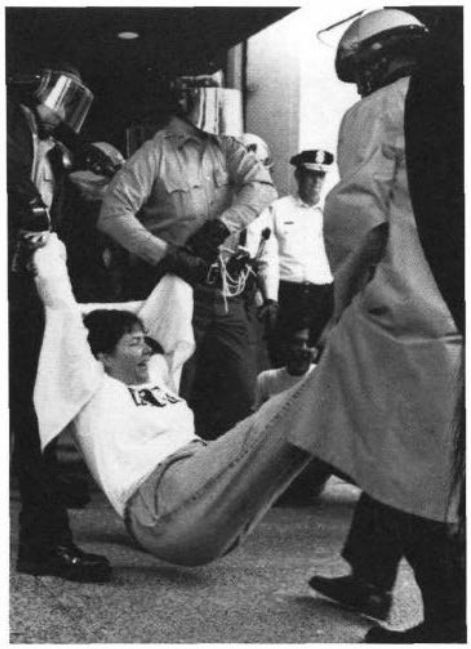
"There's no royal road to anywhere," he said. "Progress is made little by little. The NIH credit union has come a long way, but the very best in it remains unchanged."

The NIH R&W Theatre Group entertained the gathering with songs from 1940 and with a topical tune they wrote for the occasion called "Dear Creditors."

Employees who would like to join the NIH FCU may call its main office, 496-2331.—
Rich McManus □



Dr. Philip W. Landfield is the first Nathan W. Shock Memorial Lecturer, June 8, 3:30 p.m. at the Johns Hopkins Asthma and Allergy Center near the NIA Gerontology Research Center, Baltimore. The lecture honors the late Dr. N. W. Shock, first scientific director of NIA. Landfield is from the department of physiology/pharmacology, Bowman Gray School of Medicine. His lecture topic is "The Glucocorticoid Hypothesis of Brain Aging: New Evidence on Possible Mechanisms." For details call (301) 550-1707.



Among the first to be arrested on campus was this individual who had blocked the entrance of Bldg. 31C, site of an NIAID advisory council meeting.

Photos: John Crawford, MAPB
except below, R. McManus

PROTEST

(Continued from Page 1)

ater, but I don't think it was helpful," he concluded.

"All of us faced today with considerable trepidation," said NIH acting director Dr. William Raub."But I would applaud our police force for their extraordinary effort of coordination. I'm particularly pleased that the demonstrators restricted themselves, for the most part, to the proper exercise of their First Amendment rights, both in their words and in their signs.

"We at NIH sympathize deeply with (protesters') pain, fear and frustration," Raub continued. "But we also recognize how sadly misinformed they are. NIH is wholeheartedly committed to the search to unlock the mysteries of the AIDS virus and its effects on the immune system, and to identify and discover the therapies and vaccines that will eventually defeat this disease. The lights burn late into the night at the Clinical Center—and they will continue to do so—not just because of scientific curiosity, but because we are driven by compassion and commitment."

The protest began at around 7 a.m. as demonstrators, most of them young, white males, but also including women and minorities, gathered near the Medical Center Metro station, then on to the lawn of Bldg. 1. Trees on the lawn were draped with red crepe paper, apparently symbolizing government red tape.

While the main body of activists gathered at Bldg. 1 to rally for more AIDS drugs and more attention to women, minorities and intravenous drug abusers with AIDS, a contingent walked to the C wing of Bldg. 31 and blocked the entrance. Police quickly arrested a dozen or so protesters and put them in a van. ACT UP organizers armed with radios and purple or blue arm bands coordinated each stage of the protest, which, for all of the planning, appeared rather amorphous and anarchic.

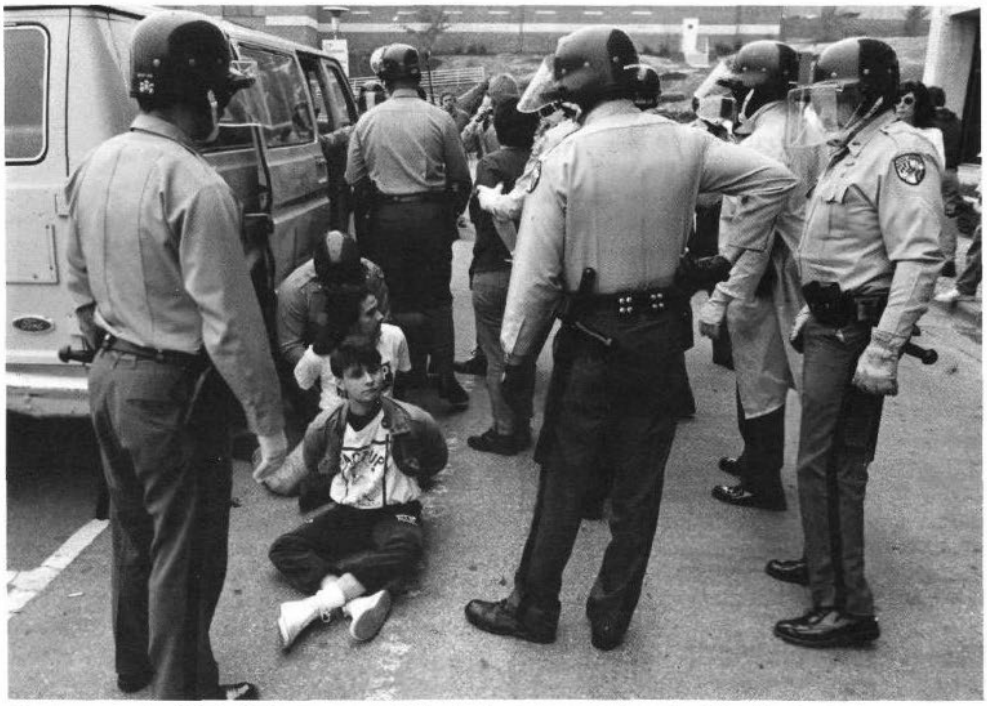
O.W. "Jim" Sweat (l), director of the Division of organizer of the ACT UP demonstration at NIH.

After stalling briefly on Center Dr. near Bldg. 6, the protest moved to the lawn in front of Bldg. 31. As fog shrouded the scene so that even the top of Bldg. 10 could not be seen, the crowd grew more stridently vocal. A few activists rushed the police line but were quickly repulsed as seven U.S. Park Police on horseback turned the tide merely by positioning their mounts.

A sampling of the chants: "Ten years, a billion dollars, one drug, big deal." "This is not a coffee break, this is the AIDS crisis." "Arrest the real criminals." "Take off your gloves, what are you afraid of?" "We're here, we're queer, and so are some of you." "Shame, shame, shame."

As curious employees drew to the windows to view the commotion, the activists devised new chants: "Typical day at NIH, watching people die." "You work for us." "Join us now." "Go back to work."

From Bldg. 31's front door, the protest ambled out to Center Dr. for a sit-in near Bldg. 2. As various activists handled the megaphone for announcements and speeches, a group of actors dressed as "Life" did imaginary battle with a black-clad troupe called



Protesters who had blocked the entrance to Bldg. 31C await removal as riot-helmeted police look on.

Security Operations, negotiates with Tom (r), an Both sides treated one another with reason and respect.

"Death." Wads of phony $50 bills were tossed into the air, suggesting drug company collusion with NIH investigators.

"Industry in no manner or form dictates what we do at NIH or what we don't do," said Fauci sternly at the press conference, where he termed ACT UP's allegations "gross distortions of reality."

As the assembly moved back toward Bldg. 1, the possibility of violence—heretofore stemmed by ACT UP marshals yelling "No violence!"—was suggested by a young man bearing a placard that read, "Cure me, I have the AIDS virus." "It's time to riot," he shouted as he skipped along with an unsettling glee.

Indeed, tension mounted as the group massed outside a double row of snow fences protecting Bldg. 1. As the chants grew in volume, a few people broke through the first fence, but were driven away at the second. Horses marched into place to restore order.

Suddenly, a handful of activists in black gowns raced in front of Bldg. 1 from behind the building, attempting to climb the stairs. Police tackled them in the bushes and hauled them away.

The mob stopped briefly in front of Bldg. 3, where a group called "Invisible Women with AIDS" held a rally. Then the whole crowd marched on Bldg. 31C, where the NIAID council was meeting.

The mood again turned angry as some protesters stood on top of government vans and cars to yell slogans. Four vehicles were damaged when demonstrators let air out of their tires and pasted them with ACT UP decals. Because an AIDS victim dies every 12 minutes in the U.S., protesters offered eerie observance by blowing whistles and sounding horns five times an hour.

It seemed that many in the crowd carried either a video camera or a regular camera; there was almost a fever to document the event. Protesters took pictures of each other with cheap Polaroids and expensive Nikons.

Leaving the C wing, the group moved off toward Bldg. 1 for the last of the speeches and a die-in, the latter of which was timed to correspond with live local TV news at noon.

Answering claims that he ducked the demonstrators, Fauci said, "I meet literally constantly with these people, either in my office, in homes, or in different cities. We've even put them on several of our advisory committees. In some respects I've been more accessible to these groups than I've been to my own family."

Fauci assured that there were not hard feelings.

"I know personally many of the leaders of today's demonstration. I understand their need to vent their frustration. It's terribly understandable by us because the only time you've done enough is when you have the answer. And we don't yet have the answer. But we will continue to give our very highest level of effort."

Raub praised O.W. "Jim" Sweat, director of the Division of Security Operations, for how police handled the most agitated protest in NIH history. Some 225 officers from four police forces were on campus for the day: NIH Police, U.S. Park Police, Maryland State Police and Federal Protective Service Police.

Police nab a demonstrator who climbed atop the Bldg. 31A portico carrying a protest poster.

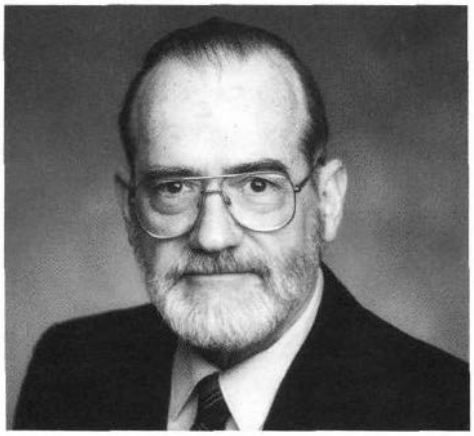
"It was the first time in my memory that four different police agencies were called on to handle a single event," said Sweat. "The level of cooperation and mutual aid was absolutely superb."

Two additional forces patrolled the perimeter of NIH—Montgomery County Police and Maryland National Capital Park and Planning Commission police.

Of the 61 people arrested on campus (and processed in a makeshift holding cell in Bldg. 13), 60 were charged with trespassing and one was charged with resisting arrest.

The ACT UP group offered a final warning as members moved toward buses to leave campus: "We'll be back, we'll be stronger."□

A band of activists mounted a government van outside Bldg. 31C and shouted slogans from its roof. Later, members of the group deflated tires on four government vehicles and pasted them with ACT UP decals.



James Doherty has been named public affairs officer of the National Center for Research Resources, heading the Office of Science and Health Reports. NCRR was recently formed by a merger of the Division of Research Resources and Division of Research Services. Doherty was information officer for DRS since 1982 and served previously as a public affairs specialist and writer-editor in NIAAA, NIMH and FDA.

Kathy Russell, president of the Children's Inn at NIH, accepts a check from the recent R&W-IBM promotion from the sale of computers to NIH employees. Representing Pulsar Data Systems (which sells IBM equipment) is Scott McGregor (l), marketing director, and William Davis, president and chief executive officer.

Bus Trips to O's Games

If you like to see the Orioles play but don't like the idea of driving to Baltimore, R&W has a solution for you: Take the bus! R&W is offering bus trips to two Orioles games: Friday, June 8, vs. New York, and Friday, Aug. 17, vs. Oakland. Cost for each trip is $19.50 per person and includes round trip transportation by deluxe motorcoach and admission to the game. For both dates the bus will leave from NIH Bldg. 31C at 5:30 p.m. For more information contact the R&W Activities Desk, 496-4600. Reservations can be made at any R&W location. □

Gives 1990 Ehrlich Lecture

Hitchings Recounts Advances in Drug Delivery

By Bernhard Witkop

Dr. George Hitchings, president of the Wellcome Fund and scientific director emeritus, recently delivered the third Paul Ehrlich Lecture sponsored by the Foundation for Advanced Education in the Sciences.

The award of the Nobel Prize to Hitchings and his collaborator Gertrude B. Elion in 1988 honored not only their discovery of new drugs but also the blazing of new trails: While drug development had earlier been built on chemical modification of natural products, they introduced a more rational approach based on a deeper understanding of basic biochemical and physiological processes.

Hitchings theorized that it should be possible to change the way cells grow by substituting slightly different compounds from those occurring naturally in the body. This introduction of false building blocks then interferes with the production of deoxyribonucleic acid (DNA) and inhibits the growth of unwanted cells. The key to their great success was finding substances that act selectively, inhibiting cancer but not normal cells. In that respect they fulfilled Paul Ehrlich's postulate that drugs should be parasitotropic and not organotropic.

The string of successful compounds that rewarded their 40-year collaboration came from their investigation of DNA metabolism. They demonstrated that nucleic acids in normal human cells are metabolized differently than in cancer cells, protozoa, bacteria and viruses. The first drug of lasting value in cancer therapy was 6-mercaptopurine, released under the brand name Purinethol, synthesized by Gertrude Elion in 1951. After it was shown to inhibit tumor growth in animals, Joseph F. Burchenal of the Sloan Kettering Institute applied it in clinical trials on children with acute leukemia. Unlike today, the Food and Drug Administration released the drug immediately for clinical use. In his lecture, Hitchings went from impressive statistics on many thousands of children saved from death due to leukemia to moving pictures of his young patients playing and frolicking after recovery from cancer.

While mercaptopurine greatly prolonged the lives of children with leukemia, it did not stay active in the body long enough to be permanently effective. Together, Elion and Hitchings then produced azathioprine, a modified form of 6-mercaptopurine, the first immunosuppressive agent to allow successful organ transplants. It gained fame and success under the brand name Imuran. By 1962, Imuran was used with great success in human patients undergoing kidney transplants.

Another modified form of the natural purine hypoxanthine that came out of Hitching's laboratory in the 1950s was allopurinol, an inhibitor of the enzyme xanthine oxidase involved in the formation of uric acid. Under the brand name Zyloprim this drug turned out to be useful not only in preventing uric acid buildup in some cancer patients, but also in treating gout, which is characterized by uric acid deposits in the joints.

The principles that guided Hitchings and Elion led them to the discovery of two important antiviral drugs: acyclovir or Zovirax, a cure for herpes virus infections, and azidothymidine, AZT (zidovudine or Retrovir), the only drug approved so far to combat some of the symptoms of AIDS. The mechanism of acyclovir was the topic of a highly cited paper by Elion and her team in 1977; acyclovir remains inert until it meets the herpes virus. The virus then converts the compound into a toxic substance bringing about its own destruction. The drug was released commercially in 1982 and has become Burroughs-Wellcome's single most profitable product.

The second antiviral drug, AZT, was the result of the search for differences in nucleic acid metabolism between normal human cells, cancer cells, protozoa, bacteria and virus that could be utilized to develop drugs that selectively block the growth of cancer cells and noxious organisms.

Hitchings, who is now 85, emphasized the role of tradition in his scientific growth and maturation. His special indebtedness goes to Sir Henry Dale, a friend and disciple of Paul Ehrlich, who shared the Nobel prize in 1936 with Otto Loewi for studies of chemical transmission of nerve impulses. Tradition shows up here as progress preserved, while progress is tradition brought forward to the latest state of the art. □

Judith Whalen, NCI planning officer, has been named chief of the new Planning, Evaluation, and Analysis Branch within the Office of Program Operations and Planning.

Plan Outlines Fight Against Kidney, Urologic Diseases

The National Kidney and Urologic Diseases Advisory Board has released an ambitious 10-year plan, *Window on the 21st Century*, to combat kidney and urologic diseases, with far-reaching recommendations for research, education and health care delivery.

In its recommendations, the board calls for additional funding to support kidney and urologic diseases research and separate NIH study sections to review grant applications in these diseases. The plan also recommends that NIDDK create an intramural research program in urology with expanded intramural research in nephrology. In addition:

- NIDDK should increase training and fellowship positions, especially for pediatric specialists in nephrology and urology.
- The Health Resources and Services Administration should develop organ donation and transplantation education programs aimed at minority populations, who are at high risk of end-stage kidney disease.
- NIDDK and the National Kidney and Urologic Diseases Information Clearinghouse should launch a kidney and urologic diseases education campaign and distribute information about treatments for end-stage kidney disease in Spanish as well as English.
- Training programs should be increased to encourage interest in nonphysician manpower in urology, nephrology and transplantation.

The board based these and other recommendations on information from nearly 1,000 people—patients and their families, health professionals and representatives of voluntary and professional organizations—who provided published and unpublished data and testified at public hearings. The 2-year effort revealed that kidney and urologic diseases affect more than 13 million people in the United States at a projected cost in 1990 of about $50 billion.

- End-stage kidney disease afflicts 157,000 Americans, nearly one-third of whom live in poverty. Diabetes, a leading cause of end-stage kidney disease, is responsible for 30 percent of new cases each year.
- Prostate cancer is the most common cancer in men (excluding skin cancer) and the second leading cause of cancer deaths in men. The cost of physician visits and hospitalization for prostate cancer totaled more than $976 million in 1985.
- Blacks, who comprise 12.3 percent of the U.S. population, are disproportionately affected by end-stage kidney disease and prostate cancer. Blacks account for 28 percent of end-stage kidney disease patients and black men have twice the mortality and a 50 percent higher rate of newly diagnosed prostate cancer than white men.
- More than half of men in their sixties and as many as 90 percent in their seventies and eighties have benign prostatic hyperplasia (BPH). The cost of physician visits and hospitalizations for BPH was more than $1.8 billion in 1985.
- An estimated 3.3 million people age 65 and older have urinary incontinence at a cost as high as $8 billion.

According to board chair Dr. Stuart Kleit, "The report presents many opportunities and stresses the need to support a research infrastructure capable of meeting the potential we all know is there. The most important thing is to pay attention to training and research. Without training and research we will fail to meet the obligations and grasp the opportunities of the 21st century."

In addition to presenting a national plan, *Window on the 21st Century* is a valuable source of kidney and urologic diseases data, organizations and terms. Single copies are available free from the National Kidney and Urologic Diseases Advisory Board, 1801 Rockville Pike, Rockville, MD 20852.—Mary Harris □

BIG Holds Training Conference, August 22-26

The 12th annual national training conference of Blacks In Government (BIG) will be held Aug. 22-26, at the Hyatt Regency Crown Center in Kansas City, Mo. The theme for this year's conference is "A New Decade—A New Challenge."

The BIG annual training conference, the only national forum designed specifically to address issues and solutions of concern to large numbers of government employees, particularly black employees, will feature experts from around the country who have been looking at the future from a variety of perspectives. These noted lecturers, elected officials, national leaders and policy makers will share their views in more than 50 workshops and plenary sessions. Topics to be covered include: career management and development; financial analysis and planning; performance and productivity; stress management; and substance abuse in the workplace.

Dr. William F. Raub, NIH acting director, has sent a memorandum to all ICD directors stating his full support for participation in this conference and encouraging ICD directors to make training funds available for employee attendance to the maximum extent possible.

Registration forms can be obtained from Sylvia Stewart, president, NIH chapter of BIG, 496-1131, and Jalil H. Mutakabbir, NIH Black Employment Program manager, 496-6301. □

BEAC Sponsors Logo Contest

The NIH black employees advisory committee (BEAC) is sponsoring an NIH-wide logo contest open to all employees. The contest is being sponsored to create a greater awareness of the objectives and functions of the NIH black employees advisory committee and to acquire a logo that will become the official emblem for the BEAC.

Selection of the logo will be based on demonstrated originality, creativity, meaning, and message of the African-American experience, and must illustrate through a positive image the BEAC's purpose and objectives.

The purpose of the BEAC is to advise the director, DEO, through the black employment program manager, on all matters concerning equal opportunity and affirmative action for black employees, thereby providing a communication channel between NIH employees and management. The objectives and functions of the BEAC include the following: review and make recommendations on the NIH systems, policies and practices that have an impact on the employment of black employees; identify specific issues and practices that are barriers to equal employment opportunities at NIH, and make recommendations to eliminate the barriers; provide liaison between the Division of Equal Opportunity and employees of their respective ICDs; support and sponsor activities that assist black employees in the employment setting; provide an effective avenue of communication and information exchange between the black employee community and NIH officials; act as a catalyst for unifying the interest of NIH employees on issues specific to black employees' concerns within the operations and policies of the NIH; and share information with employees on the activities of the Black Employment Program.

Logo entries must be submitted on the BEAC logo entry form no later than June 15. An entry form will be attached to the all-employee memorandum soon to be distributed, or you may contact Jalil H. Mutakabbir, Black Employment Program manager, in Bldg. 31, Rm. 2B40, to obtain an entry form.

The winner of the contest must relinquish all rights to his/her logo design to the National Institutes of Health. The winner will receive recognition and an award for special achievement. □

Infant Care Available at NIH

Full-time child care for ages 2 months to 3 years is available at ChildKind at NIH in Bldg. T-46. Openings are now available for ages 18 to 36 months. ChildKind is open to chidren regardless of race, religion or national origin. Hours are 7:30 a.m. to 6 p.m. For more information call 496-8357. □

Skies Part for 13th Annual NIH Challenge Relay

Conducted during a brief interval between showers on a warm and muggy day, the 13th annual NIH Institute Challenge Relay race on May 16 attracted 44 teams composed of some 220 runners.

The race course around Bldg. 1 was damp as the race commenced at noon; NIH acting director Dr. William Raub fired a starter's pistol to begin the competition, sponsored by the NIH Health's Angels Running Club.

This year, a new category was added to the race. In addition to all-male, all-female and mixed divisions, there was a master's male division. Winning this category, in a time of 13:00, was "Running on Empty," composed of Rick Weindruch, Harry Mahar, Carl Roth, Jerry Moore and Jack Shawver.

The fastest time overall—12:37—belonged to the "NIH All Stars," which include Tony Brown, Charles Argoff, Dante Richardson, Gary Murray and Steve Miller. They won the all-male division.

Winning the all-female flight in 15:16 were the "Synectics," made up of Anne Burkhardt, Chris Grady, Robin McKenzie, Alison Wichman and Janet Dale.

The mixed division winners, the "Dingoes" of NIDDK, finished in 14:47. Members included Leslie Shelly, Lisa Bates, Craig Orlowski, Guck Ooi and Tony Pham.

As usual, an informal competition—based on clever team names—paralleled the footrace. Among the best entries were "Human Gnomes" from the National Center for Human Genome Research, "501 Genes" of NIAMS, and the "Bldg. thirtysomethings" of NIDR.

Television titles were also popular with NIAID, which entered the "Simpsons." Tasteless names included "Sex Lethal Mutants" of NIDR and "Malignant Degenerates" of NCI. Uninspired entries included "DCRT Champions" and NHLBI's "First." Winning the "Come again?" category for obscurity or neologism were the "Synectics" of NCI.

A runner from NCRR's "40 and BEIPing" team completes his leg of the relay race.

You'd run too if you had a fierce-looking Dr. Martin Begley of the Clinical Center's diagnostic radiology department on your tail. Dr. Joe Schmitt hustles to break the tape ahead of Begley.

1990
13th ANNUAL NIH INSTITUTE CHALLENGE RELAYS

TIME	*TEAM NAME*	*ICD*
	MIXED OPEN TEAMS	
14:47	Dingoes	NIDDK
14:48	Golden Powers	NHLBI
14:58	Active Sights	NHLBI
15:03	Gene Striders	NCI
15:04	Pavement Epithelium	NEI
15:07	501 Genes	NIAMS
15:08	T-Timers (IL-Y)	NCI
15:34	Mental Lars	NCI
15:34	Safety Striders	DS
15:37	Pavement Epitheliums	NEI
15:50	T-Timer (IL-2)	NCI
15:55	DFM-Credits	OD
16:03	First	NHLBI
16:05	Epitaphs	NCI
16:09	Plodding Clotters	CC
16:26	Slowest Common Denominators	NIH
16:31	Sex Lethal Mutants	NIDR
17:18	Malignant Degenerates	NCI
17:23	Travelers	OD
17:31	Beip For Help	NCRR
17:34	Ward's Wards	DCRT
17:39	Great Bears	NHLBI
17:56	Rat Kings	NIMH
17:57	Motility Factors	NCI
18:19	Human Gnomes	NCHGR
18:31	DCRT Champions	DCRT
18:46	Latent Potential	NCI
18:47	Benny's Jets	OD
18:56	Demsey's Dumplings	DRG
20:42	Full House	NIAID
	OPEN FEMALE TEAMS	
15:16	Synectics	NCI
16:30	Quickies	OD
	OPEN MALE TEAMS	
12:37	NIH All Stars	NINDS
13:28	Simpsons	NIAID
13:55	Wild Things	NIDR
13:59	Bleeping Beipers	NCRR
14:00	T-Timers (TNF)	NCI
15:01	Pad's Packs of Pox	NIAID
15:32	Wurtz Possible Runners	NEI
16:10	FF Bldg 30 Somethings	NIDR
17:03	Quick Blots	NCI
	MALE MASTERS TEAMS	
13:00	Running on Empty	NIH
14:56	40 and Beiping	NCRR
17:36	Feet of Endurance	NCRR

The "Dingoes" won the mixed division portion of the race. Members included (clockwise from lower l) Leslie Shelly, Guck Ooi, Tony Pham, Craig Orlowski and Lisa Bates.

The "NIH All Stars" won the men's division. They are (from l) Charles Argoff, Dante Richardson, Tony Brown, Gary Murray and Steve Miller.

Winning the all-female division were the "Synectics," which included (from l) Robin McKenzie, Anne Burkhardt, Alison Wichman, Chris Grady and Janet Dale.

Photos: Bill Branson, MAPB

Winner of the Master Male category was "Running on Empty," which included (from l) Jerry Moore, Carl Roth, Harry Mahar, Jack Shawver and Rick Weindruch.

Two women runners complete a successful baton-passing on the rain-slick race course in front of Bldg. 10.

Cell Bank Service Available

Beginning in May, the Human Genetic Mutant Cell Repository will make life easier for researchers who are mapping human genes. The repository, a resource supported by the National Institute of General Medical Sciences, is already well-known to scientists around the country. It sells over 4,000 well-characterized cell lines representing many human genetic conditions. This service frees researchers from the burden of finding suitable patients who can act as tissue donors. Now, the repository is expanding its services. For the first time, it will provide DNA from rodent-human hybrid cell lines.

Gene mappers have taken advantage of the peculiar characteristics of rodent-human cell hybrids for more than a decade. When human and rodent cells are fused, the hybrid cells contain all the chromosomes of both species. As the cells grow and divide, however, the 23 human chromosomes are gradually ejected (for reasons that are not clear). Eventually, a given hybrid cell line will contain just a few human chromosomes.

A gene mapper can take a stretch of human DNA of unknown chromosomal origin and apply it to, for instance, a hybrid cell line known to contain only human chromosomes 1 and 3. If the applied DNA is complementary in sequence to any portion of either of the human chromosomes, it will attach at that point and can later be detected. In one step, the researcher has narrowed the search for the DNA's chromosomal origin from any one of 23 possible sites to only two. The time saving is obvious.

Rodent-human hybrid cell lines, however, are notoriously unstable, continuing to lose pieces of human chromosomes at random. Moreover, the cells are not useful for gene mapping unless the researcher can be sure exactly which chromosomes they contain (this process is called "characterizing"). That's where the repository comes in. Working with cell lines originally created by a UCLA researcher, the cell biologists at the repository have developed what one expert calls "the best characterized somatic cell hybrid panel in the world." (A panel is a series of cell lines that together contain all the human chromosomes.) Characterization and DNA extraction are done at the same "passage" level (after the same number of cell division cycles). DNA from the parental cell lines is included in the $1,000 purchase price.

The repository is also completing its collection of somatic cell hybrid lines that each contain only one human chromosome. Researchers who would like to take advantage of either of these predicted "hot sellers" are invited to call the Human Genetic Mutant Cell Repository, 1-800-752-3805. □

DCRT Director Pratt Retires After 42 Years at NIH

When DCRT director Dr. Arnold W. Pratt came to NIH in July 1948, computing didn't exist, even as a punchcard operation.

Forty-two years later, biomedical research at NIH has made major strides and computers have become an integral part of biomedical programs and administrative procedures, with more than 5,000 personal workstations campus-wide and an $800 million central computer facility.

Pratt, a pioneer in computing at NIH, will retire on June 1.

He received his M.D. at the University of Rochester School of Medicine in 1946. He then served on the staff of the New York Hospital from March 1946 to July 1947 and was a research associate at Cornell Medical School for 1 year.

Pratt joined NIH as part of the Laboratory of Physical Biology. A year later he joined NCI's Laboratory of Physiology where he eventually became head of the energy metabolism section. There he investigated many biomedical research areas where computer technology was applied. He subsequently published several papers on computational analysis of ultraviolet absorption spectra and the use of computers in cancer chemotherapy.

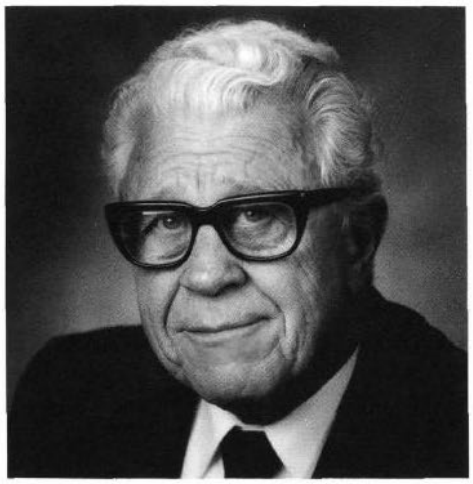
In 1962, Pratt received the first laboratory computer at NIH—an IBM 1620.

"We realized that computers were needed to calculate in all biophysics work to reduce the quantities of numbers," he said.

That need became evident campus-wide and a steering committee was formed in 1963 that recommended a division on computer sciences. NIH director Dr. James Shannon acted on the steering committee's report and the Division of Computer Research and Technology was established on Apr. 16, 1964. It came into physical being in October 1965 and the formal program was launched in August 1966 with the appointment of Pratt as the division's first director.

By then, Pratt had been at NIH for nearly 20 years and was considering retirement from PHS. He was looking into opportunities at universities and medical centers that were beginning biomedical computer activities. Pratt gladly accepted the challenge to advance biomedical computing at NIH.

The urgent task of the new DCRT was to develop and maintain a computing service that could meet NIH's developing needs for all areas of data handling, including management programs, extramural grants programs and intramural research programs. In 1967, the NIH central facility consisted of two IBM 360/50 computers, machines of very modest capacity that could accommodate an average of 43 defined jobs per day, submitted as card decks and run on batch mode.



Dr. Arnold Pratt

Today, the computer center is made up of six IBM 3090 processors that contain a total of more than 768 million bytes of directly addressable memory. The center now processes more than 11,000 interactive sessions, 75,000 database transactions and 18,000 batch jobs daily.

Among accomplishments of the division Pratt cites the early development of natural language processing, developed in the late 1960s and early 1970s, that allows computers to understand and find lines of text.

"No one's done better since then," he said.

It also established programs for servicing surgical pathology data that are still in effect 20 years later.

More recently under Pratt's direction, DCRT has established a Personal Computing Branch to serve the needs of the users of more than 5,000 personal workstations at NIH; awarded a 10-year contract for state-of-the-art mainframe computing technology; enhanced scientific computing by acquiring a Convex computer to provide a minisupercomputer capability; led a project to acquire 40 molecular graphics workstations to provide NIH scientists with powerful computational capability; established a network task group to provide support for a campus-wide communications structure; and established an administrative database that supports and maintains a huge software package.

"A past look at computation and data processing at NIH shows that it has been exciting and productive. Our computer facilities have served well the biomedical statistician and mathematician and provided a reliable technology that greatly enhances the scientist's ability to define, conduct and evaluate experiments.

"As fruitful as the past has been, the future promises even more as the ideas and aspirations of 25 years of pioneering computer science are realized in the laboratory and the clinic," said Pratt.

"The computer as a tool in the conduct of biomedical research is here to stay," he concluded. "DCRT had much to do with that maturation."—**Colleen Henrichsen** ☐

Fogarty Scholars Win Science Prize

Three former scholars-in-residence at the Fogarty International Center have won the 1990 Israel Prize in the Life Sciences, Israel's top science award.

The three scientists are: Dr. Moshe Prywes, 76, founder of the Ben-Gurion University Beer Sheva Medical School and now head of its Centre for Medical Education; Dr. Meir Wilchek, 55, of the Weizmann Institute of Science; and Dr. Alexander Levitzki, 50, head of Hebrew University of Jerusalem's Life Science Institute.

All three scientists came to NIH in the late 1970s and early 1980s. Prywes, a Fogarty scholar during 1979-80, pioneered a humanistic approach to educating physicians. He also sought to increase physician training in developing countries. He created a community-oriented medical school in the Negev that became famous for its innovative teaching program.

Wilchek helped develop a widely used process that rapidly purifies biologically active compounds. Affinity chromatography has been used to produce growth hormones, vaccines, and enzymes, including interferon and interleukin, both important anticancer weapons.

Levitzki became a Fogarty scholar at age 41—one of the youngest scientists ever chosen. He had already made key contributions to enzymology and had been a visiting scientist at the National Cancer Institute. The Israel Prize cited his application of theory and experimental research in making discoveries about molecular biochemical control mechanisms. ☐

TRAINING TIPS

The NIH Training Center of the Division of Personnel Management offers the following:

Courses and Programs	*Dates*
Management and Supervisory 496-6371	
Practical Management Approaches	6/13
Managing Behavior in the Work Environment	6/19
Practical Management Approaches	7/10
Interpersonal Relationships in the Work Environment	7/10
Working With Personal Differences: MBTI Applications for Personal Development	7/17
Attitudes: How They Affect Productivity in the Work Environment	7/19
Applied Creativity	7/24
Communications for Results	7/24
Reviewing Other Peoples' Writing	7/25
Office Operations Training 496-6211	
Delegated Acquisition	6/25
Basic Time and Attendance	6/7
Domestic Travel	6/18
Foreign Travel	6/12
Training and Development Services 496-6211	

Personal Computer training is available through User Resources Center (URC) self study courses. There is no cost to NIH employees for these hands-on sessions. The URC hours are:

Mon.-Thurs.	8:30 a.m. — 7 p.m.
Friday	8:30 a.m. — 4:30 p.m.
Saturday	9 a.m. — 1 p.m.

Training Center, DCRT, and other training information is available on WYLBUR. Logon to WYLBUR and type ENTER TRAINING

NIH Science Writers Honored

NIH science writers from the National Center for Research Resources and National Institute on Aging recently won awards from the mid-Atlantic chapter of the American Medical Writers Association at its 15th annual competition for excellence in writing on biomedical and health-related topics.

NCRR's Maureen B. Gardner claimed first place for her brochure, "From Cells to Selves: The National Institute of Child Health and Human Development."

Karen McCrory Pocinki of NIA won honorable mention for her booklet, "Resource Directory for Older People."

Authors of the winning entries, which were judged on the basis of accuracy, literary style, clarity and interest to intended audience, received their prizes May 8 during a ceremony held at the National Press Club. □

Norma Guenterberg Retires

Norma L. Guenterberg, secretary to Terry F. Pechacek in NCI's Smoking, Tobacco, and Cancer Branch, retired Apr. 30 after 27 years of government service. In lieu of the customary retirement luncheon, she requested that coworkers wishing to honor her at this time send donations to the Children's Inn at NIH or to St. Ann's Program for their "boarder babies." □

Dr. Kendall G. Powers (l), a DRG health scientist administrator, retired recently after 42 years of active and reserve duty in the commissioned corps. He received the Defense Meritorious Service Medal from Maj. Gen. David S. Trump of USUHS. Powers' citation read, "The distinctive accomplishments of Capt. Powers culminate a long and distinguished career in the service of his country and reflect great credit upon himself, the U.S. Navy, USUHS and the Department of Defense."

Employee Day at Children's Inn

The Children's Inn at NIH invites all NIH employees to celebrate the grand opening of the inn on Tuesday, June 19. The inn will host an open house from 11 a.m. to 4 p.m. during which employees may tour the building on their own or with a guide.

In conjunction with NIH Employee Day, the inn also welcomes the Camp Fantastic Barbecue on Tuesday, June 19 from 11:30 a.m. until 2 p.m. The Camp Fantastic Barbecue lunch will cost $5 and includes chicken, hot dogs, beans, applesauce, chips, beverages, and dessert. In addition to a great lunch, ticketholders will be treated to entertainment by the pop-rock band Streetlife—back by popular demand. Tickets for the Camp Fantastic Barbecue can be purchased at any R&W location. A limited number of tickets is available, so get your tickets early! □

Members of the IBM Systems Integration Division present to the Children's Inn a complete computer, monitor, printer and software for the playroom. Pictured above are (l to r): Andrew Tartler, executive director, Children's Inn; Michael Prokup Jr., IBM Information Center analyst; Kirsti Wilson, social work intern; Jack Winters, vice president, IBM, Gaithersburg, Md.; Kathy Russell, president, Children's Inn; Kate Higgins, resident manager, Children's Inn; Randy Schools, general manager, R&W; and Pat Onken, marketing manager, IBM.

Italian Dinner Offered June 1

An Italian dinner will be held at the FAES Center located at Old Georgetown Road and Cedar Lane in Bethesda on Friday, June 1. Dinner will be served at 7 p.m. with a social hour beginning at 6 p.m. The cost of the dinner is $7 (payable at the door) with a cash bar. The dinner, which includes spaghetti, meatballs, salad, and cannoli is being sponsored by the Order Sons of Italy in America, Lodge #2547. RSVP for reservations by calling 301-652-6136. □

DRG's Dwyer Meets the President, Is Named One of America's 'Thousand Points of Light'

By Sue Meadows

When David Dwyer, a Division of Research Grants employee, wrote to the president of the United States last February, inviting him to visit the Bethesda-Chevy Chase Rescue Squad, of which David is chief, he had in mind the celebration of B-CC's 50th anniversary of volunteer service. But when President Bush came to visit on Apr. 25, during National Volunteer Recognition Week, it was not only to help celebrate that event, but also to highlight the work of the volunteer rescue squad members by naming them one of America's "thousand points of light."

Dwyer was singled out by the president as one of those responsible for keeping the volunteer service strong during the 21 years he has served as the squad's volunteer chief. He praised Dwyer for being on the "front lines" of saving lives. In return, Dwyer presented the president with a badge and a chief's helmet and made him an honorary squad member.

Dwyer, a management analyst in DRG, said he felt "fantastic" about the president's visit. "It is very heart warming to see that kind of support from the president."

President Bush arrived at the B-CC station about 2 p.m. and was given a 20-minute tour of the facilities. Afterwards he spoke briefly at a ceremony attended by the squad's volunteers and top county officials. Accompanying him were Congresswoman Connie Morella of Maryland and Congressman Curt Weldon of Pennsylvania, chairman of the congressional fire service caucus.

From a seat on the podium, Dwyer heard the president call him and the other squad members the "backbone of America." Such volunteers, both fire and rescue, he said, "meet local emergencies risking your lives to save others. I salute you. I respect and honor you for a job well done. Thank you from the bottom of a grateful heart."

Morella also paid tribute to the rescue squad, both at the ceremony and the next day when she spoke on the floor of the House of Representatives of these "volunteers who sacrifice their time and put themselves at risk daily for their community." Dwyer can take satisfaction from the words of Morella published in the *Congressional Record*, "I was delighted to accompany the President to the rescue squad...to congratulate the members of the squad, with a special congratulations to...Chief David S. Dwyer."

A week later, after Dwyer had time to savor the congratulations and praise he received, there was yet more recognition. At a testimonial dinner, he was presented one of 12 Volunteer Administrator Awards for 1990 from Governor Schaefer of Maryland.

President Bush shakes hands with DRG's David Dwyer who, as chief of the Bethesda-Chevy Chase Rescue Squad, received special recognition when the president came to visit during National Volunteer Recognition Week and named the squad members one of America's "thousand points of light."

Between these events, Dwyer continues to do what he has done for 21 years—lead a dedicated group of volunteers in providing one of the best-equipped fleets of emergency medical rescue services in the country to the communities of Bethesda, Chevy Chase, and upper Northwest Washington. Dwyer says that the work is extremely rewarding and that the rewards are all his. □

Former Miss America (1959) Mary Ann Mobley (l) meets with NIDDK director Dr. Phillip Gorden and his wife Vivian recently before testifying on Capitol Hill. A victim of Crohn's disease, Mobley asked Congress to make more funds available for research into digestive diseases at NIDDK. Both Mobley and Gorden are native Mississippians.

Symposium on Vascular Biology

"Vascular Biology and Medicine: The Next Frontier," a National Heart, Lung, and Blood Institute symposium, will be held in Masur Auditorium, Bldg. 10, on June 6 and 7.

At the conference, leading researchers and experts in the field will present their views on the state of the science, problems facing current understanding, and anticipated developments in vascular biology and medicine. Frontiers to be discussed include genetic therapy for vascular disease, antibody targeting in vascular disease, development of an artificial blood vessel for vascular grafts, and new treatment technologies such as angioscopy and laser angioplasty.

The symposium is the fourteenth in the NHLBI series, "Frontiers in Basic Sciences That Relate to Heart, Lung, and Blood Diseases." NHLBI sponsors the series to help capitalize on and transfer the progress achieved in basic science disciplines to clinical research programs.

For more information or to obtain a registration form, contact Gerri Wolfle, 496-9899. □

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