

# The NIH Record

## Grooming Greatness

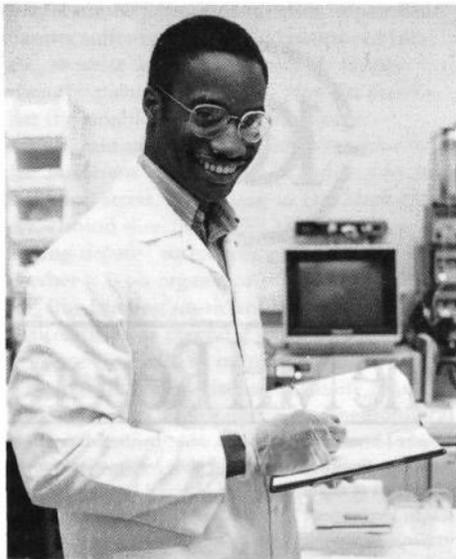
By Kathy Kranzfelder

"We're grooming the next generation of Nobel laureates," is how Levon Parker describes the program.

The Nobel-laureates-in-training, however, seem to have a more limited view. They're more likely to tell you about tissue cultures, Western blots, ELISAs, and other laboratory techniques they are learning.

Though Parker and the "proteges" may have different perspectives on the NINCDS summer program in the neurosciences, they at least share the same enthusiasm about it.

Parker, the Equal Employment Opportunity officer for the National Institute of Neurological and Communicative Disorders and Stroke,



Dr. Estrada Bernard is a postdoctoral fellow in the NINCDS Medical Neurology Branch.

manages this highly competitive program that gives students hands-on research training and experience in the neurosciences. The proteges are a diverse group of top students from all over the United States. Arriving in June and July as their academic schedules permit, they are assigned to preceptors for guidance and their summer of discovery begins.

This year, 3 high school, 22 university, and 16 medical school students are participating in the NINCDS summer program. They come from institutions large and small—from Yale, and Stanford, and Dripping Springs (Texas) High School—to learn from some of the leading biomedical scientists in the world.

For some, it is their first brush with research. Others have worked in laboratories be-

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## Smoke-Free Policy Kindles Questions, Answers

By Anne Barber

It is estimated that approximately 25 percent of NIH's employees smoke, but as of Sept. 1, NIH will become "smoke free."

To help these employees kick the habit or adjust to the new policy, Dr. John T. Kalberer, chairman of the Smoke-Free Advisory Committee, has been fielding questions for several months from employees concerned with the implementation of this new policy.

Since the *NIH Record* has also received its share of phone calls, we asked Kalberer to sit down with us and respond to the most frequently asked questions. Here they are:

**Question:** Who is going to be responsible for enforcing this nonsmoking policy at NIH?

**Answer:** The individual employees have the responsibility to fellow employees and themselves to adhere to the policy established by the director and the BIDs. Specifically, the enforcement burden is going to rest with peer pressure from others in respect to their fellow workers.

We would like to see this informal channel used but if this doesn't work, ultimately, supervisors will have the responsibility for seeing that their employees follow the directive. The action recommended by the advisory committee and approved by the director is that the HHS Standards of Conduct will be followed in disciplining an employee.

"Supervisors are going to have to be enforcers," Kalberer says. "Everybody has a boss, even Dr. Wyngaarden."

**Question:** What if a person smokes in his or her office behind a closed door?

**Answer:** That person is not only in violation of our policy, but also the GSA regulations, where it is emphatically stated there will be no smoking in private offices. The reason for this is that higher graded people are the ones most likely to have private offices.

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## All The News That's Fit—or Unfit

### Cells and Journalists Share Behaviors, Science Writers Learn at Seminar

By Bobbi Bennett

Like journalists, cells get bombarded with information that has to be put together so that their "readers"—the cell's internal parts—can understand it and respond appropriately. How cells get the "news" and how its proper use results in normal function while its "misuse" leads to disease were the subjects of a recent NIH Science Writers Seminar.

The "news" consists of signals from outside the cell, either from the environment (photons of light, glucose, and other nutrients) or from other cells (hormones, growth factors, and neurotransmitters). Several information transfer systems by which these signals—or first messengers—cross the cell membrane and turn on the cell's machinery were discussed by Dr. Allen Spiegel, chief of NIDDK's section on molecular pathophysiology, Metabolic Diseases Branch.

His laboratory has played a major role in discovering the structure and functions of the family of G-proteins involved in the information transfer system for signals such as adrenaline and chemotactic factors that make white blood cells move toward and engulf invading bacteria. These signals bind to specific receptors for them that are located in the cell membrane.

G-proteins then couple these receptors to effec-

tor proteins that generate inside the cell another set of signals—second messengers—such as cyclic AMP (cAMP). The second messengers then activate special enzymes that can turn cell proteins "on" or "off" by adding to, or removing from, them a phosphate group—known as phosphorylation and dephosphorylation, respectively. Thus, the function of cell proteins can be dramatically and rapidly altered to keep the body functioning properly.

If errors occur anywhere in the information transfer system, there can be adverse or devastating consequences. For example, the bacterium that causes cholera and the one that causes whooping cough produce toxins that modify different G-proteins but have the same result: overproduction of cAMP. Too much cAMP in the gut leads to the lethal diarrhea of cholera whereas too much cAMP in diverse tissues may be responsible for the hypoglycemia and other symptoms of whooping cough.

Spiegel's group has found a deficiency of a G-protein in people with pseudohypoparathyroidism—an inherited disease in which patients make enough parathyroid hormone but their cells don't respond to it. This shortage of

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## SMOKE-FREE

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**Question:** What do you do if your supervisor is smoking in his or her private office?

**Answer:** That person should be approached by the people in close proximity that he/she is in violation of the existing policy. If employees are uncomfortable about approaching the supervisor regarding this matter, they should go to their administrative office. It is their job to follow up and see that the nonsmoking policy is being adhered to.

"We have to live with the rule established," Kalberer continues, "and ultimately, if need be, we will continue up the ladder of supervisors until we get a high level individual that can enforce the rule. If we did not intend to enforce this decision, the rule would not have been made in the beginning."

**Question:** What about smoking in the restrooms? People have continued to do this even though it has been NIH's policy not to allow it there.

**Answer:** We have already begun to see more smoking in our restrooms even before our Sept. 1 deadline because people have become more defensive about their smoking habits. But they are in violation and we are going to place "No Smoking" decals on every mirror in all the restrooms so that everyone is made aware this area is definitely off limits to smokers.

In regard to the restroom situation, we have already experienced vandalism with people tearing up the "No Smoking" signs. In anticipation, we have ordered a special decal that is more vandal proof, and will take much longer to remove or destroy, and the chances are that the individual doing so will be caught in the act. This culprit can then be charged with vandalism.

With respect to smokers and nonsmokers having to share the restrooms, people should know this is not a proper place to smoke. We hope these decals will prevent confrontation and make the smoker aware and be more considerate.

**Question:** How many times will you pay for an employee to take the smoke cessation course?

**Answer:** At present, we can only commit ourselves to pay for the course one time. However, I do expect some people are going to have to, and want to, take it more than once. At some future date, perhaps we can make some adjustment and help those people.

Parenthetically, in the last issue of the *Record*, it was reported that NIH would pay for half of the course; now the decision has been made to refund the full fee to employees completing the entire course.

**Question:** What about smoking in the blind stands? Are the blind stand operators covered under the no-smoking policy? Who can ask them to stop smoking?

**Answer:** Yes, the blind stand operators will be covered under the new station regulations once they are approved. (We expect approval within the next few weeks.) It is under these regulations that guests, contractors, and visitors to NIH are covered.

The operators will be informed by the Maryland State Blind Association about this new policy but any NIH employee would be within his or her rights to ask them to stop smoking once this regulation has been approved.

A precedent has been set recently in an Oklahoma-based case concerning whether or not the management of the Indian Health Service had the prerogative to call for a smoke-free work environment. It was the decision of the Labor Relations Board that since the agency had a mandate that dealt with health issues, it was proper for them to take that step. NIH also falls into this category as a health-related agency.

**Question:** In the last issue of the *Record* (Aug. 11) you said areas would be designated outside of the buildings for the smokers. Have you designated these smoking areas yet?

**Answer:** The committee's recommendation at this time is that there will be no smoking in front of the building entrances and that smoking be confined to patio areas such as those located in and around Bldgs. 31, 10, 36 and 37, as examples. There will be sufficient sand urns and receptacles placed in those areas to accommodate the smokers. Additional adjustments may have to be made regarding this issue based on our experiences next month.

**Question:** How many smoke breaks is an employee allowed away from his/her work station?

**Answer:** There is no set number and arrangements would have to be made with one's supervisor in terms of how long, and how many, breaks might be arranged without being disruptive of a person's job responsibilities. In addition, it depends on the individual's extent of addiction and, also, if one particular supervisor has several smokers among his or her workers.

Again, we must emphasize that supervisors and fellow workers must exercise patience and understanding to the fact that some smokers are more addicted than others and will therefore take a little more time to make the adjustment.

**Question:** Can people smoke in cars?

**Answer:** Yes, as long as the cars aren't in any of the garages; for example, Bldg. 10 or Lister Hill. As in the past, smoking is still not permitted in government cars.

**Question:** If a person has a cigarette, cigar or pipe in his mouth or hand that is unlit, is it in violation of the policy?

**Answer:** No, as long as it remains unlighted.

**Question:** What if a person has a lighted cigarette in his hand but is not smoking it, is that in violation?

**Answer:** Yes, that is in violation of the new policy. The reason is that it defeats the purpose of avoiding passive smoke.

**Question:** If a person is caught smoking at NIH, can that be considered an illegal act?

**Answer:** The person most qualified to answer this question would be NIH's legal advisor, Bob Lanman. However, I don't see this as an illegality unless it was taken to court and had to be acted upon.

Dr. William T. Friedewald, director, Office of Disease Prevention, is optimistic about the smoke-out, Sept. 1. "Sure, there will be some exceptions, people will forget, but overall," he continues, "yes, I think the employees will abide by the new policy." □



## The NIH Record

Published biweekly at Bethesda, Md., by the Editorial Operations Branch, Division of Public Information, for the information of employees of the National Institutes of Health, Department of Health and Human Services, and circulated to nonemployees by subscription only through the Government Printing Office. The content is reprintable without permission. Pictures may be available on request. Use of funds for printing this periodical has been approved by the director of the Office of Management and Budget through September 30, 1988.

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Notes from CC Grand Rounds

**'Dystonia' May Cramp Musicians' Careers**

By Lisa Datta

Few people would consider playing a musical instrument a hazardous activity, but many musicians have discovered that it can lead to fine motor control problems in their hands. These problems can impair their ability to play and, in severe cases, ruin promising careers.

The condition, since it affects piano players, is known in layman's terms as "piano player's cramp." It appears to be a "focal dystonia" and is characterized by difficulty in controlling the movements of one or several fingers. The affected fingers flex or extend involuntarily.

One of the peculiarities of this disorder is that other manual tasks requiring fine motor control can be performed without impairment. Pianists suffering from hand cramps can eat, sew, or write without difficulty. It is only when the pianist attempts to play the piano that the troublesome symptoms appear.

This unusual feature has led to speculation that musicians' cramps may be induced by psychological stress. According to Dr. Mark Hallett, clinical director, NINCDS, there is a "raging debate" surrounding the question of whether it is an organic or psychological disorder. But labeling musicians who suffer from this condition as mentally ill only "adds insult to injury" in Hallett's opinion.

Nearly all neurologists now classify musicians' cramps as a focal dystonia, a neurological condition leading to a disordered state of tension in the affected muscles. The electromyogram (EMG) patterns of patients with "piano player's cramp" reveal a continuous spasm of the muscles being used. In normal persons, the muscles show bursts of activity alternating with periods of relative rest.

Although a musician with focal dystonia can do everything he or she normally would except play a musical instrument, this is a serious handicap for someone who is both emotionally and financially dependent on the ability to play. Many musicians with focal dystonia become depressed. Robert Schumann is one of many famous musicians with hand problems who might have been diagnosed as suffering from a focal dystonia had he been around today. It was one of several features that so disrupted his life that he eventually fell into depression and had to be committed to a mental hospital.

It is easy to see why pianists are particularly prone to develop focal dystonias. Hallett says that playing the piano for long periods every day can stress the hand, which may contribute to this condition. Many of the movements that pianists execute so effortlessly on the keyboard are actually "quite demanding tasks," he said.

What, if anything, can be done for these talented but unfortunate artists? According to some gloomy predictions, the virtuoso who develops motor control problems is incurable. While there is still no cure, there are techniques that can temporarily alleviate symptoms. In ongoing experiments at NIH, physicians focally inject patients with botulinum toxin, a potent substance produced by the bacterium, *Clostridium botulinum*. This is the same agent responsible for many food-poisoning deaths. Given therapeutically, the toxin helps by weakening the muscles involved; the major side effect is excessive weakness. Obviously a physician must exercise great care when administering this toxin.

Although botulinum injections do not eliminate all symptoms, most patients experience improvement. The effects are only temporary, however, and patients must return for treatment in approximately 3 months. Despite the limitations of this therapy, most patients are pleased with the results. □



Dr. Robert C. Gallo, chief of NCI's Laboratory of Tumor Cell Biology, was awarded the Lion's Club International Humanitarian Award for this year in Taipei, Taiwan, recently. He shared this award (\$25,000 each) with Dr. Luc Montagnier of the Pasteur Institute of Paris, France, for the codiscovery of the human immunodeficiency virus and demonstrating it as the cause of acquired immunodeficiency syndrome (AIDS). The joint award has symbolized the international cooperation in the fight against AIDS. The previous (1986) award winner was India's Mother Teresa. Gallo and Montagnier announced in Taiwan that their laboratories would now share by a satellite network experimental results in the area of AIDS research prior to publication.

**Patients' Wishes Paramount In Life/Death Decisions**

By Blair Gately

The primary consideration in deciding to forego life-sustaining treatment is: "What is the patient's wish?" according to Dr. John Fletcher, chief of the bioethics program at the Clinical Center.

At a recent session of Grand Rounds, Fletcher outlined the current view on how decisions are made to use specific technologies to prolong a patient's life.

"In the 1960's the issue was dialysis, in the 1970's it was mechanical ventilation, now it is nutritional support and in the future it will likely be antibiotics," he said. Fletcher cited a number of cases, including that of Karen Quinlan, where families fought prolonged court battles to have a patient's life support system discontinued.

"At most hospitals, decisions about use of life-sustaining technologies are made amid great uncertainty about the likely clinical outcomes," he said. "At NIH we are the exception to the rule. We have more money and resources and we can often predict the outcome."

In seeking moral guidance to make decisions about life-sustaining treatment "a crucial distinction" needs to be made, according to Fletcher: "Will the treatment provide a benefit or a burden? Will it be curative and improve the person's life or will it only create another burden?" This "benefit/burden ratio" needs to be assessed for each patient, he said.

Fletcher stressed the need for people to discuss their wishes for medical treatment with family members.

"Everyone should have a living will and give it to his or her family, doctor and lawyer. Make an advance plan for how you want your life to end," he told the audience.

The bioethicist's presentation at Grand Rounds was his last at NIH. He has left to assume dual professorships in biomedical ethics and religious studies at the University of Virginia. □

**Meeting Calendar Available**

A calendar of biomedical meetings sponsored by NIH and other organizations through December 1988 is available from the Division of Public Information, OD.

The calendar is prepared annually for the NIH information community; it can be used to schedule events that may be of interest to the news media.

To obtain a copy, call Bea D'Aguzzo, 496-1766. □

**NIMH Studies Put Panic in its Place****Phobic and Panic Disorders—Fighting the Fear of Fear**

By Mary Daum

Betty left her house early in the morning to go to work. As she was walking to her car she noticed the neighbor's kitten across the street. Betty froze. Should she continue to her car or go back? Her heart was racing, her palms were sweating and she felt like she had to escape. She quickened her step and made it to her car without coming into contact with the kitten.

The reaction seems extreme. But many people have the same reaction to other situations. Betty suffers from a phobia. Phobia comes from the Greek word "phobos" meaning fear or flee. A phobia is an unfounded intense fear or morbid dread of an object, situation or activity. The anxiety felt by the person is very real but out of proportion to the true danger or threat of the situation. The phobic person's life is almost always constricted because of the need to avoid the object or situation. Sometimes people avoid the object of their fear for years.

According to Dr. Thomas W. Uhde, chief of the Unit on Anxiety and Affective Disorders at NIMH, phobic, panic, obsessive/compulsive and generalized anxiety disorders fall under the large umbrella heading known as "anxiety disorders." He believes that anxiety disorders are perhaps the most common type of mental illness in our country. The onset of phobic and panic disorders is late adolescence or the early twenties and the sufferers are most often women.

Simple phobias and social phobias are classified as phobic disorders. Simple phobias are fears of specific objects or situations such as ailurophobia, fear of cats, claustrophobia, fear of being confined, and acrophobia, fear of heights. Gephyrophobia, fear of crossing a bridge, belonephobia, fear of needles, and arachnophobia, fear of spiders, are just a few of the many other phobias.

Extensions of common childhood fears or frightening incidents that happened in the past are often the cause of simple phobias. For example, a dog bite early in life could cause a phobia of dogs. Oftentimes children outgrow phobias but not always. Adults also develop simple phobias. Simple phobias are most often treated with some type of behavioral therapy. Modified exposure therapy is one example. In exposure therapy, the phobic person is exposed little by little to the object or situation that causes fright. The goal is to desensitize the person to the situation.

Uhde urges that people who have simple phobias be totally honest with themselves and their doctors when a simple phobia is diagnosed. He has found that many people who say

they have a simple phobia, upon further questioning, are found to be "polyphobic," having a combination of related phobias. These people may actually have agoraphobia or panic disorder and require more extensive therapy.

Social phobias most often involve the fear of doing something silly or embarrassing while being watched or scrutinized. Some common social phobias are fear of blushing, fear of eating in public, fear of using public lavatories and the classic fear—public speaking. Although most people are nervous to some degree about speaking in front of a group, someone with a true public speaking phobia would avoid this activity altogether. Phobic situations are often dealt with in groups, as occurs at NIH in Uhde's unit.

"Social phobics tend to overestimate the threat of the situation of public speaking and underestimate their ability to deal with it," says Uhde. In some cases, medicines commonly referred to as "beta blockers" are used to treat social phobics. Beta blockers inhibit adrenaline activity in the body, easing the "fight or flight" sensation felt during a phobic response. It is not unusual that social phobics can trace their phobia to extreme shyness as a child.

Unlike simple and social phobias, which come under the heading phobic disorders, panic disorder with agoraphobia (until recently called agoraphobia with panic attacks), is a related anxiety disorder but with more serious consequences. Agoraphobia has most recently been distinguished as a complication of panic disorder and not vice versa.

Uhde deals with agoraphobics at NIMH. "A typical scenario would be a person who has a panic attack. Initial episodes of panic occur out of the blue. Then the patient misidentifies the situations in which the panic attacks occur as the cause of the panic attacks. Finally, the patient begins to avoid any situation in which he or she has experienced a panic attack."

According to Uhde, this avoidance pattern begins to spread to other objects and other situations; sometimes the person will become literally housebound in an effort to avoid experiencing a panic attack. Uhde says that agoraphobia develops to some degree in over 90 percent of patients with untreated panic disorder. Commonly thought of as "fear of open spaces," agoraphobia can encompass much more. A more correct definition of agoraphobia is fear of being in any situation where escape would be impossible upon sudden incapacitation.

So far, a cause has not been found to explain

panic disorders. It has always been known that the disorder is closely tied in with the cardiovascular system. During World War I, the disorder was often referred to as "soldier's heart." Indeed, one of the signals of a panic attack is the feeling of inability to control a racing heart. Many people who end up in emergency rooms during a panic attack think they are having a heart attack.

Stress, an enemy blamed for making people sick, does not seem to be the cause of panic disorder. Uhde agrees that some people already predisposed to panic disorder begin to have panic attacks triggered by stressful life events. However, he is quick to point out that many people, including patients with panic disorder, do not experience panic attacks when under a lot of stress. Thus, Uhde feels that stress is not the direct cause of the disorder. To say that panic disorder is simply a stress reaction would be totally incorrect. Says Uhde: "For example, stress in diabetic patients can worsen their condition, but to conclude, therefore, that stress has caused the diabetes is scientifically illogical. Obviously, the management of stress in the diabetic or panic patient can be extremely valuable. But to conclude on the basis of these types of observations that stress is the direct and exclusive cause of either diabetes or panic disorder is sheer nonsense."

There are a variety of theories about why panic attacks occur. One interesting phenomenon that seems to nod in the direction of a biochemical cause is the fact that some people are awakened from sleep by panic attacks. Moreover, it has been found by Uhde and Dr. Thomas A. Mellman, a colleague of Uhde's at NIH, that these nocturnal panic attacks do not occur during REM (rapid eye movement) sleep, the sleep associated with dreaming and, therefore, cannot be associated with nightmares.

A possible piece of the puzzle appears to be heredity. Uhde mentioned that there is a strong hereditary link in people with anxiety disorders, particularly in patients with panic disorders.

"In identical vs. nonidentical twins there is a five times concordance for the panic disorder in identical twins than in nonidentical twins." This is strong evidence supporting the idea that the disorder may be inherited.

Because panic attacks occur spontaneously, it is difficult to study them in the laboratory. In order to examine the phenomenology of panic disorders in a research setting, panic attacks are often chemically induced in patients.

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At NIH, research on this subject has involved caffeine and its effect on panic disorder patients. Uhde has noticed that panic disorder patients have a much lower tolerance level for caffeine than the rest of the population.

"Although a panic attack can be induced in anyone with enough caffeine, the threshold for panic disorder patients is much lower," he said.

Uhde found that the equivalent of 4-6 cups of coffee would not induce panic attacks in control subjects but that the same amount of coffee could quite easily trigger a panic attack in a panic disorder patient. In fact, Uhde found that, prior to contacting NIH for treatment, up to 60 percent of panic disorder patients had already given up coffee in an effort to alleviate their panic attacks.

Pharmacotherapy (treatment with medication) is the most successful therapy Uhde has used. He finds that in 70 percent of patients with panic disorder, medication therapy alone achieves a good response.

What about behavioral therapy? Says Uhde: "Behavioral therapists say that their technique will result in the long-term resolution of symptoms. This frequently is not true. The vast majority of our patient population has already tried behavioral therapy and, although they have developed very useful 'coping' strategies, they still have symptoms." Uhde did point out, however, that behavioral therapy for almost all simple phobias and many social phobias is the preferred treatment.

The prognosis for patients with panic and phobic disorders is very good. According to Uhde, the vast majority of patients can achieve complete resolution of symptoms with medication, behavioral therapy or both. □



Recently the NICHD Adult Endocrine Unit celebrated the remodeling of 10 West in the Clinical Center. The remodeled space now includes a conference room, consultation room, testing room and two additional patient rooms. Enjoying the beautiful environment are (l to r) Dr. Richard J. Sherins, chief of the section on reproductive endocrinology, Dr. Lynnette Nieman, the unit ward chief, Dr. D. Lynn Loriaux, clinical director, and Loretta A. Coughlin, deputy chief of the Normal Volunteer Office in the CC.

## Biomedical Research Helps Animals, Scientists Say

Scientists from the American Veterinary Medical Association met recently at NIH to present lectures on the "Contributions of Biomedical Research to Animal Health." The program was held to commemorate the NIH Centennial and to recognize the Division of Research Resources' 25 years of service to the extramural research community.

Sir William Henderson, fellow of the Royal Society, gave the keynote address. He described how animal health has benefited greatly from biomedical research. The former executive head of the British Agricultural Research Service and current president of the Zoological Society of London cited several examples, including how the incidence of scrapie—a neurological disease affecting sheep—has dropped dramatically in Iceland due to improved animal husbandry techniques. He attributed the improvement in animal health during the last decade to a better understanding of biotechnology, which he linked to a greater commitment of government resources to research.

Dr. Daniel H. Mintz, scientific director of the Miami-based Diabetes Research Institute, said that he and his colleagues had developed and tested a successful surgical technique for transplanting pancreatic islet cells in diabetic dogs. Mintz, who also serves as professor of medicine at the University of Miami (Florida) School of Medicine, presented evidence that islet allografts can induce and sustain lengthy remissions of diabetes in dogs.

Another panelist, Dr. Milton Wyman, assistant dean of the College of Veterinary Medicine, Ohio State University, described how diabetes-related ocular lesions occur in the cornea, lens, and retina of both dogs and humans. He said that preliminary evidence suggests that morphologic changes in these tissues occur in both diabetic and galactose-fed dogs, a condition that implies involvement of the enzyme aldose reductase. Wyman concluded from his studies, which are sponsored by NEI, that scientists are better understanding the role that aldose reductase plays in the etiology and management of diabetic lesions in both dogs and humans.

According to Dr. John G. Vandenbergh, professor and head of the zoology department, North Carolina State University, researchers may be better able to control animal breeding by understanding the role of pheromones, emitted compounds that have a scent that physiologically affects the behavior of other animals.

Dr. Gordon Theilen, professor of surgery, School of Veterinary Medicine, University of California, Davis, a pioneer in retrovirus research, focused on studies that have led to de-

velopment of vaccines for many animal viruses.

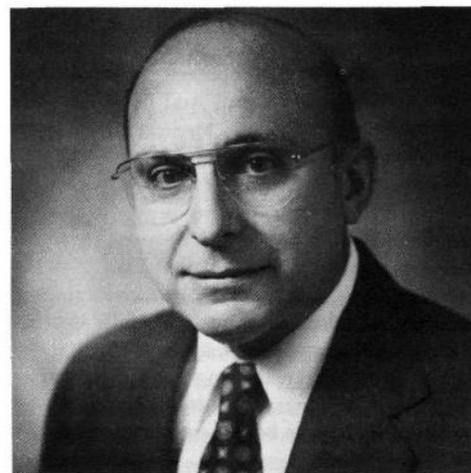
He discussed recent work that has identified a disease in cats resembling AIDS caused by a retrovirus called feline T-cell lymphotropic virus (FTLV). While Theilen believes that cats with this virus will be useful models in AIDS research, he said there is no apparent cat-to-human transmission of FTLV.

Theilen added that recent research on AIDS provides the potential for controlling and eliminating costly retroviral diseases in animals.—Michael Fluharty □

## Allergy Volunteers Wanted

The Laboratory of Allergenic Products, Office of Biologics Research and Review, FDA is seeking 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. Volunteers will be asked to complete a questionnaire. Selected subjects will undergo skin testing with commercial and/or investigational allergenic extracts.

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



Dr. William R. Sanslone was recently appointed director, Office of Program Planning and Evaluation, for NIAMS. He comes from NHLBI, where he was associate director for scientific program operations, Division of Lung Diseases, from 1983 until this year. Before joining NIH in 1971, he was associate professor of biochemistry at State University of New York Downstate Medical Center in Brooklyn, N.Y.

## NINCDS

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fore, but perhaps they have never learned such advanced techniques or worked in such "hot" areas. For all, however, it marks their chance to see if NIH might eventually be the best place to invest their talents.

"The more I see, the more I like," says 17-year-old Eric Bradburn of his initiation to laboratory research. Bradburn is the young man from Dripping Springs (population 668, according to the sign on the edge of town). During his assignments in the NINCDS Laboratory of Molecular Biology, he will investigate how astrocytes might stimulate and direct neurite outgrowth. Astrocytes are cells in the central nervous system that support and nourish the neuron. "I'm getting to see firsthand some of the research that is shaping the world," Bradburn says.

Scott Lin, 17, a senior at Louisiana School for Math, Science and the Arts who first visited NIH as a Centennial scholar in March, admits he was at first nervous about working with the scientists. But he relaxed after meeting his mentors.

"I was expecting it to be so strict here, like at school," he explains. But Lin says he soon found that the scientists are easy to approach. Lin, working with staff fellow Dr. John Mill and visiting fellow Dr. Karen Mearow also in the Laboratory of Molecular Biology, is looking at the enzyme glutamine synthetase. Having found the gene that codes for this enzyme, the group is now mapping the gene.

According to Lin and Bradburn, the friendly but science-serious atmosphere creates an excellent learning environment. And Jaime Gomez of the University of Texas Medical School at San Antonio agrees.

"I'm impressed at how helpful everyone is," Gomez says. "I was expecting people to give me all these high-powered definitions that would go way over my head, but Don [Gehlert, Ph.D., NINCDS Neuroendocrinology Lab] explains everything and really watches me the first go-around to make sure I get it right." Gomez is conducting experiments to learn how a designer street drug known as "ecstasy" affects the body's endocrine system.

### No cookbooks

The benefits of learning the latest biomedical research techniques are obvious; having the opportunity actually to perform these techniques is an even greater advantage for the students, especially for those who have never worked in a research lab. But the biggest bonus comes in learning the broader theories behind the singular experiments. The students say their precep-



Ruben Munoz works in the NINCDS Laboratory of Molecular Biology.

tors are generously explaining to them the "big picture," giving them individual attention they never expected.

"The scientists take time to make sure that we understand the theory behind everything we're doing," Gomez says. "It's not like they give me a cookbook and tell me to follow a recipe. They want to make sure I see the goal behind the experiment."

"We're not just performing tasks," concurs Bradburn, who is guided by Dr. Jerome Wujek. "We're asked to think. For example, Dr. Wujek asked me to run a test, and then asked, 'What do you think of it?' Not expecting such a question, I said, 'Well, I don't know.' But then he said, 'OK, sit down and analyze it; make adjustments and run it again.'"

Richard Illgen, a preprofessional science junior at Notre Dame University, likes the weekly meeting in his lab where the scientists discuss what they have found. Illgen has noticed that people in the labs are often asking the same research questions, and that data from one scientist often will help another.

"And," he says, "we are allowed to ask questions, too, and talk about what we have found." Illgen says that these sessions provide lessons not only in science but also in communicating science. "That's important," he explains, "because if we go into science, we need to know how to present our findings clearly and in a manner that everyone can understand. What good are your findings if you can't communicate them to others?"

This is Illgen's second year as a student-sci-

entist in the NINCDS summer program in the neurosciences. He is working in the Laboratory for Central Nervous System Studies where he is helping to screen sera for the microscopic culprits of HTLV-1, HIV, Korean hemorrhagic fever, and Prospect Hill virus.

Ruben M. Munoz, a senior chemistry major at the University of Texas at San Antonio, adds that he finds the seminars presented for the students by NINCDS scientists extremely helpful. "They are geared for our levels and we learn a lot from them," he says. The NINCDS summer program is the only one on campus that includes a scientific lecture series for the students.

Munoz is in the Laboratory of Molecular Biology with another student, Stanford University senior Bill King, probing glucose transport to cells. Under the supervision of Dr. Richard Henneberry, they seek to isolate the glucose-transporter gene.

### Lasting impressions

Though the students are at different stages in their scientific development, many think this experience at NIH will figure prominently in their plans for the future.

Illgen, who is applying for medical school, says he is looking into an NIH program by which one can earn a doctoral degree along with a medical degree. "At this point," he says, "I'm trying to decide what sort of path I want to follow in medical school: clinical or academic. My two summers at NIH have helped me determine that research is a rewarding lifestyle."

Jaime Gomez, who says, "I'm sure I want to be a neurologist, but I'm thinking about neurosurgery as well," wants to witness some neu-



High school, college and medical school students were at NINCDS. Some may return for research careers at NIH.

rosurgery while he is here to help him decide.

And Jacqueline Griffith, a second-year medical student at the University of Michigan, says she knows she wants to be a clinician but is less certain what her specialty will be. Griffith, who is originally from the Washington, D.C., area, is working with Dr. David Barba in the Surgical Neurology Branch. She is investigating the effectiveness of lymphokine-activated killer (LAK) cells and interleukin-II against brain tumors.

### Back to the future

For three of the students in the summer program this year—Richard Illgen, Guy McKhann of Yale University Medical School, Sang-Mo Kang of Harvard Medical School—this is their second NIH summer.

David Pezen, who has completed 2 years at Loyola University of Chicago's Stritch School of Medicine, has also returned to NIH, but this time for a 1- to 2-year stint. He was awarded support through the Howard Hughes Medical Institute/NIH Research Scholar Program for Medical Students.

"My experience at NIH last summer narrowed my perspective," Pezen reflects. After working in Nobel laureate Dr. Carleton Gajdusek's lab, Pezen says he became interested in slow viruses. He has returned to NIH to continue the work he started in 1986.

To see where one summer in the NINCDS summer program in the neurosciences may lead a student, one need look no further than to Dr. Estrada Bernard.

Bernard was introduced to NIH in 1981 as a medical student in the summer program. Using some of the research he conducted that summer, he published a paper in the *Journal of*

*Neurochemistry*. Today, Bernard is on a postdoctoral fellowship in the NINCDS Medical Neurology Branch. He is also now in his fourth year of residency training in academic neurosurgery at Duke University.

When former summer students like Bernard return to NIH or apply to NIH for grants and other programs, Levon Parker is a happy man. These are just the sort of events the program is designed to precipitate.

"The scientists we have on campus today," says Parker, "will not be with us forever. And it takes a long time—and an early interest in research—to develop a Nobelist." □

## Schools Have USDA Funds for Free and Reduced-Price Meals

The NIH Preschool Developmental Program offers free and reduced-price meals for children under the sponsorship of the Child Care Food Program of the U.S. Department of Agriculture; so does the Nettie Ottenberg Memorial Child Care Center.

The same meals are available to all enrolled children at no separate charge regardless of race, color, sex, age, handicap or national origin and there is no discrimination in admission policy, meal service, or the use of facilities.

Any complaints of discrimination should be submitted in writing within 180 days of the incident to the Secretary of Agriculture, Washington, D.C. 20250.

Eligibility for free and reduced-price meals is based on the following income scales effective from July 1, 1987 to June 30, 1988.

### Eligibility Chart

Family Size	Eligibility Scale for Free Meals	Eligibility Scale for Reduced-Price Meals
1	\$0-\$ 7,150	\$ 7,151-\$10,175
2	\$0-\$ 9,620	\$ 9,621-\$13,690
3	\$0-\$12,090	\$12,091-\$17,205
4	\$0-\$14,560	\$14,561-\$20,720
5	\$0-\$17,030	\$17,031-\$24,235
6	\$0-\$19,500	\$19,501-\$27,750
7	\$0-\$21,970	\$21,971-\$31,265
8	\$0-\$24,440	\$24,441-\$34,780
Each additional family member add	+ \$2,470	+ \$3,515

The NIH Preschool Developmental Program is located in Bldg. 35, Rm. 1B05. For more information, call Pat Gokey or Vanessa Fuss, 496-5144. To reach the Ottenberg Center, 5650 Oakmont Ave., Bethesda, call Anne Schmitz, 530-5550. □

## NIEHS, We Implore Thee

One of the special pleasures of putting out the *Record* is knowing that the words we write will be read in the state of North Carolina. You might not believe this but it is often a vision of the *Record's* loyal readers at NIEHS that prompts us to drag ourselves to work each morning through hellish August heat.

Life in North Carolina, as we imagine it, is tranquil and orderly. The name Research Triangle Park suggests a pleasing geometry, a tree-filled trigonometry where hypotheses and hypotenuses lie comfortably intersected. In our mind, NIEHS is an equilateral triangle, where all sides are the same length. Or perhaps an isosceles triangle, two of whose sides match. But never an obtuse or scalene triangle, whose angles either spread awkwardly wide or pinch too tight.

It is easy, when speaking of Research Triangle, to go off on a tangent. The real angle we wish to pursue here is to plead with our friends in Tar Heel country: please do something about our environment.

Our request is simple enough—rid us of heat and humidity, the twin diseases that afflict all of us this summer in Bethesda.

Perhaps you can arrange air conditioning for the entire Washington metropolitan area, a region known for its prodigious supply of hot air. Is it too elegant and simple a solution to suggest that you NIEHS'ers have us down to your beach homes at Duck, N.C.? Or invite us to camp with you on the Outer Banks, somewhere between Frisco and Buxton? Maybe you'll want us along when you pack up the RV and head over to Blowing Rock? Can we stop in Chapel Hill and get a drink at the Old Well? Or the Carolina Coffee Shop?

Men and women of NIEHS, we implore you. Don't leave us simmering in our own juices. Show us some southern hospitality. Tell us, in that peculiarly inviting southernism, to "come go" with you on vacation.

We will be waiting by the phone. □

## DB2 Classes Available

The NIH Computer Center is offering DB2 presentations for groups interested in this database management system.

The class lasts about 3 hours and includes demonstrations and discussions of unique applications of DB2. Topics include menu selection, tables and indexes, querying, report formatting and printing, and data security.

Classes are usually held in Bldg. 12A, but can be scheduled elsewhere. For more information, contact the Computer Center DB2 Team, 496-9158. □



at campus for the NINCDS Summer Program in the NIH. Perhaps one will win a Nobel prize.

## NHLBI Celebrates Its 40th Anniversary and the NIH Centennial

This year the National Heart, Lung, and Blood Institute has double cause for celebration: its own 40th anniversary and the NIH's Centennial. The NHLBI is sponsoring activities throughout the year to mark the two milestones. In September the salute moves into high gear with new exhibits, new publications, special events, and a variety of scientific lectures and conferences. These activities highlight the achievements resulting from 40 years of research and the partnerships the institute has forged between government, academia, industry, voluntary organizations, and the public.

The following is a brief overview of some upcoming events as well as some that have taken place. For more information on any activity, call the NHLBI Communications and Public Information Branch, 496-4236.

### Conferences, Lectures, and Symposia

During the centennial year, the institute has sponsored two scientific conferences and will sponsor a third in September under the general title "Frontiers in Basic Sciences That Relate to Heart, Lung, and Blood Diseases":

"Receptors and Cell Activation," Sept. 17-18, Masur Auditorium, Bldg. 10, will be chaired by Dr. M. Beaven, NHLBI, and Dr. A. Gilman, University of Texas Health Sciences Center. The American Heart Association is cosponsor of this symposium. (For more information contact Dr. Elliott Kulakowski, 496-6765.)

A series of noontime lectures is planned for NIH employees on three consecutive Tuesdays in September. Each will be held in Wilson Hall, Bldg. 1, from 12 to 1 p.m.

Sept. 8  
The Heart: An Inside Look  
Dr. Stephen Epstein

Sept. 15  
Blood Transfusion Safety  
Dr. Harvey Klein

Sept. 22  
Chronic Obstructive Lung Disease  
Dr. Ronald Crystal

On Sept. 9 at 3 p.m., in Masur Auditorium, the institute will sponsor a lecture in memory of Dr. Paul Dudley White, a pioneering cardiologist who was deeply involved in the institute's early development. The speakers will be Drs. Ogelsby Paul and Eugene Braunwald.

On Sept. 22, Dr. William Castelli, director of NHLBI's Framingham Heart Study, will give a lecture on heart disease as part of the popular "Medicine for the Layman" series in Masur Auditorium.

On Oct. 16, a cardiology panel will hold one

of several minisymposia at the NIH Alumni Reunion. Titled "The Ischemic Myocardium," it is scheduled for 2:30-5:30 p.m. in the Lasker Center (Bldg. 60).

Finally, the institute is cosponsoring symposia at several scientific meetings of professional societies and other organizations that have an interest in NHLBI programs. Coming up soon are:

"Sickle Cell Disease in the Next Decade"  
Howard University; Washington, D.C.  
Sept. 21

National Association for Sickle Cell Disease Symposium  
Baltimore, Md.  
Oct. 8-10

"Diagnosis of Pulmonary Embolism"  
American College of Chest Physicians;  
Atlanta, Ga.  
Oct. 28

### Special Events

*NHLBI Cafeteria Project:* In collaboration with Government Services, Inc., NHLBI is sponsoring a cafeteria project featuring 11 different "healthy heart" recipes. Each of the low fat, low cholesterol lunches—developed from recipes used in an NHLBI cholesterol-lowering clinical trial—will be served at least twice during the month of September. Recipe cards for that day's menu will be available in each NIH cafeteria where the special foods are being served.

*NHLBI Employee Reception:* Scheduled for Sept. 1, this event will recognize NHLBI staff members, whose work and dedication are essential to the programs supported by the institute. It will be sponsored by The Friends of the National Heart, Lung, and Blood Institute, a coalition of 28 private companies and professional and voluntary organizations.

*NHLBI Cardiovascular Risk/Factor Screening Followup:* In September 1986, at the NIH Occupational Medical Services Safety/Health/Security Expo, the NHLBI offered cardiovascular risk factor screening to NIH employees. Followup screening will take place in September 1987.

*NHLBI Directors' Reunion:* In December 1986, NHLBI Director Dr. Claude Lenfant hosted a dinner for former directors of the institute. Before the dinner, each former director shared his experiences and recollections of memorable events during his office. A videotape of this session will be part of an NHLBI exhibit opening in Bldg. 31 in September; it will be available for future events. Former di-

rectors featured on the tape are Drs. James Watt, William Stewart, Theodore Cooper, Donald Fredrickson, and Robert Levy.

### Exhibits

Three exhibits have been arranged. One highlights major scientific, medical, programmatic, and legislative achievements of the institute in the last four decades; it will open in September in the A-wing lobby of Bldg. 31. The second is for the NIH Open House, Oct. 4-5. Designed for the general public, it features information on three cardiovascular risk factors—high blood pressure, high blood cholesterol, and smoking. A third is already in place in the Dewitt Stetten Jr. Museum of Medical Research at the Clinical Center; it recounts the development of the heart-lung machine, an important advance in open heart surgery.

### Publications

The institute is preparing two new publications for wide distribution:

*Forty Years of Achievement in Heart, Lung, and Blood Research.* This document will cover significant NHLBI contributions during the past 40 years to research on heart, lung, and blood diseases. The topics are acute myocardial infarction, atherogenesis, risk factors for coronary heart disease, high blood pressure, neonatal respiratory distress syndrome, chronic obstructive lung disease, abnormal hemoglobins, and transfusion medicine.

*A Salute to the Past: A History of the National Heart, Lung, and Blood Institute.* This document assembles recollections of the institute's 40-year history from legislators, scientists, and NHLBI staff who have been involved with the institute since its inception.

### A Tribute to Framingham

For 40 years, the institute has supported the Framingham Heart Study, a cardiovascular epidemiology project in Framingham, Mass. A lot has been learned from this pioneering study, made possible by the spirit of volunteerism of an entire community. On Dec. 17, 1986, Dr. Robert Windom, assistant secretary for health, DHHS, presented a tribute to the citizens of Framingham. The tribute was signed by Drs. Windom, Bowen, Lenfant, and Wyngaarden. In addition, poster and essay contests on cardiovascular disease were held for students in Framingham schools. The winners were honored by NHLBI's advisory council last spring.

—June R. Wyman □

## Turtles Contribute to Technique

# Study of Cold-Blooded Animals Helps Heart Surgery

By Karen Perkins

Every year some 200,000 Americans must undergo coronary artery bypass surgery, a technique that involves bypassing one or more narrowed or blocked coronary arteries (usually with venous segments taken from the leg) to restore adequate blood flow to areas of the heart. To perform this surgery, doctors use a device called the heart-lung machine to take over the functions of the heart and lungs while the heart is stopped.

Since its introduction in the 1950's, major strides have been made in improving the safety of this strategy, called cardiopulmonary bypass. But because cardiopulmonary bypass usually involves hypothermia, or lowering body temperature to decrease the body's need for oxygen, questions have been raised about how best to manage a patient in this cooled state. Of particular concern is acid-base homeostasis, since acid-base disturbances can endanger the electrical stability of the heart and create life-threatening situations.

To better understand the conditions that accompany hypothermia, scientists have been studying cold-blooded, or ectothermic, animals such as turtles. Unlike humans, these animals normally experience a wide range of body temperatures that vary with the temperature of the surrounding environment. As their body temperatures fall, the pH (a measurement of acid-base status) of their blood and tissues rises.

One of those scientists is NHLBI cardiac surgeon Dr. Julie Swain, who has been conducting research aimed at improving the safety of bypass surgery by investigating the changes that occur metabolically when various acid-base management schemes are used.

"There are two ways to manage pH that are used clinically," says Swain. Traditionally, the strategy of most cardiac surgeons has been to maintain pH at 7.4, the "normal" level for people and other warm-blooded animals—a strategy called pH-stat. A newer, and possibly safer, method is called alpha-stat, in which surgeons allow pH to rise as temperature falls. "That is how cold-blooded animals manage pH, and that is what we are investigating at the NIH both in the animal laboratory and in the operating room." She adds, "Half of the surgeons in the country use the alpha-stat method now, but many questions still are not answered about what is the best method and why."

Before working with NHLBI, Swain was doing research in hypothermia at the Scripps

Institution of Oceanography of the University of California at San Diego. She worked with Dr. Fred White, an expert in comparative physiology and director of the institution's physiology laboratories. There, she realized that the knowledge of comparative physiolo-



*The turtle, a cold-blooded animal, or ectotherm, normally experiences a wide range of body temperatures that vary with the thermal conditions of the environment. As the turtle's body temperature falls, its pH rises. The alpha-stat method of pH management for heart surgery patients follows this ectothermic scheme.*

gists, who encounter hypothermia in cold-blooded animals, could provide valuable insights into the management of patients during cardiac surgery. "We thought we could learn something about how to manage man by how animals manage hypothermia," says Swain.

Continuing her research here at NIH, Swain and her coinvestigator Tom McDonald are conducting several research projects comparing the alpha-stat and pH-stat schemes during cardiac surgery. In the NHLBI Surgery Branch, they are using dogs to investigate oxygen utilization and the metabolic state of the body during bypass surgery.

She is also working with Dr. Robert Balaban of NHLBI's Laboratory of Kidney and Electrolyte Metabolism, using nuclear magnetic resonance imaging in sheep to study their metabolic state during surgery. In addition, Swain is involved with clinical studies looking at the conduct of cardiopulmonary bypass and the effect that these two pH management schemes have on metabolism in her cardiac surgery patients at the NIH.

Although the main aim of her research is to improve the safety of cardiopulmonary bypass, an improved method of pH management would also play a vital role in treating people who accidentally experience a dangerous drop in body

temperature. Such accidental hypothermia victims are in danger of ventricular fibrillation, a distorted rhythm of the heart that can lead to death. Swain has shown that when the alpha-stat scheme is used while carefully rewarming these victims, the heart is more electrically stable and can be more easily prevented from fibrillating.

Alpha-stat promises to assume increased importance in open heart surgery, especially for those patients who are in the poorest medical condition. "For these borderline patients," says Swain, "it may make the difference between pulling them through or not." □

## New Shuttle Schedule

Beginning Sept. 8, the Transportation Branch, ORS, will start its new Campus Shuttle bus service. The shuttle will operate Monday through Friday, from 6:30 a.m. to 6:26 p.m., and will stop at the Medical Center Metro Station, Bldgs. 1, 31, 10, the Convent, Bldgs. 36-37, 29A, 14, 41, 38A and 12A. Passengers will be picked up and discharged at these locations only.

There will be a bus leaving from each stop every 8 minutes during rush hours and every 15 minutes during nonrush hours. Each bus will be painted white and clearly identified as



*New campus shuttle bus.*

the "Campus Shuttle."

Lift-equipped vans are available for the physically impaired by calling the Motor Pool, 496-3426.

A foldout brochure, which includes a map of the system identifying bus stops and building numbers, a timetable, and a brief description of other NIH shuttle services will be distributed desk-to-desk.

For additional information on the new shuttle service, call the Motor Pool. □

**CELLS***(Continued from Page 1)*

G-protein may lead to many of the disorder's consequences including mental retardation.

"One of the first clinical implications of this work is that we can now understand how some drugs work," Spiegel stated. "What is being worked out is the precise region that binds the first messenger and the precise regions inside the cell that are involved in talking to G-proteins. Drug companies will be probing these structures to find more specific blockers for treating angina, asthma, and perhaps, Alzheimer disease and parkinsonism."

How the "news" affects the contractile activity of smooth muscle cells—which comprise the uterus, coronary arteries, and digestive tract—was described by Dr. Robert Adelstein, chief, Laboratory of Molecular Cardiology, NHLBI. In these cells, the "news" is spread by signals that lead to an increase in the concentration of calcium inside the cell.

Calcium then initiates a reaction in which myosin, one of the two major contractile proteins, is phosphorylated. (The other one is actin; contraction consists of the sliding of myosin filaments past actin filaments.) The phosphorylation is what allows myosin in smooth muscle to interact with actin so that they can slide past one another.

This results in a shortening of the smooth muscle which, for example, allows for a decrease in the size of the coronary artery or the propulsion of food in the digestive tract. Adelstein's group has found that there is a second enzyme that can phosphorylate myosin in smooth muscle but at a different site in the molecule and with different effects. They are investigating what role this second phosphorylation plays in the body.

Actin and myosin are present in much smaller amounts in all the other nonmuscle cells in the body including basophils—blood cells that can be involved in allergic reactions. The NHLBI group has shown that, as in the situation with smooth muscle cells, both enzymes are involved in phosphorylating myosin in basophils. Adelstein thinks "that this second enzyme may be important for the movement of the packets of histamine from inside these cells to their periphery where the histamine can be secreted to the outside." He is working on this problem in collaboration with NHLBI's Dr. Michael Beaven.

The session's moderator, Dr. Michael Gottesman, chief, molecular cell genetics section, Laboratory of Molecular Biology, NCI, described how cancer cells generate too much news or misinterpret the news they get because of errors in information transfer.

Oncogenes—genes that are involved in turning normal cells into cancer cells—play a major role in such changes, for example, by altering a receptor so that it is active even though it hasn't received the appropriate signal—a growth factor or hormone—or by producing excessive amounts of the growth factors themselves. In the latter, the cells become autonomous since they are making the growth factors they need to grow, and as they grow they make more growth factors.

"It is a cause of great excitement that many oncogene products—the proteins made by these genes—make up components of the signal transfer system that seems to be involved in growth regulation," stated Gottesman. One oncogene, *erb-B*, codes for a protein that looks like the receptor for a growth factor known as EGF.

Scientists in Dr. Ira Pastan's lab in the NCI have shown that *erb-B* acts as though it is constantly turned on so that the cell is misled into thinking that it is "seeing" EGF all the time. Consequently, all subsequent steps in the information transfer system are turned on and the cell continues to divide and becomes a cancer cell.

Another oncogene, *ras*, is very similar to the G-proteins. The *ras* product may mimic a normal G-protein that is constantly turned on, so the cell thinks that it is continually receiving a signal to grow.

The current view on how oncogenes turn normal cells into cancer cells is that they mimic growth factors, receptors, transducers, or the secondary signals that get into the nucleus and activate DNA. Consequently, Gottesman said, "the cancer biologist can now be viewed as a cellular endocrinologist and cancer as a disease in which the cell is getting the wrong news." □

**Child-Care Center Opens**

Childkind, the first infant day-care center in Montgomery County, has relocated to a new, modular building placed behind Bldg. 46 in a secluded corner of the NIH campus. Bldg. T-46 is a short, squat, square structure that houses up to 33 children between the ages of 2 months and 3 years.

Childkind was previously located in St. Andrew's Episcopal High School in Bethesda until the lease expired at the end of May. In search of a new location, Childkind approached NIH for space. NIH accommodated the center since many NIH parents sent their children there.

Once the decision had been reached to provide a new home for Childkind, things moved at a rapid pace. According to Tim Theoharis of the Division of Space Management, only 6 months elapsed from the inception of the plan in January to its completion in June. "All the support services worked together" to complete the project, said Theoharis. One reason for the haste was that Childkind is one of only two infant day-care centers in Montgomery County.

Because the child-care center has been relocated on NIH property, children of NIH parents have priority for openings at the center. Children of federal employees are next in line, and children of "others" are given consideration last.

The center is open from 7:30 a.m. to 6 p.m. Monday through Friday. The cost of sending infants is \$670 per month for children under 2 years and \$495 for those older than 2. Financial assistance is available for eligible children. For more information, call Childkind at 496-8357.



Standing outside the newly constructed Childkind daycare center (Bldg. T-46) are employees (l to r) Laura Schuetz, Latisbia McPbail and Marilyn Powell. The center has a dozen employees and a director.

## TRAINING TIPS

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

Courses And Programs	Dates
<i>Management and Supervisory</i> 496-6371	
Working With Personnel Differences MBTI I	9/29-30
Effective Presentation Skills	9/14-15
Effective Communications	9/29-10/2
Introduction To Supervision	9/21-25
Dealing With Daily Conflict	9/16-18
<i>Office Skills</i> 496-6211	
Introduction to Working at NIH for New Support Staff	9/14-25
Secretarial Excellence	10/18
Proofreading and Editing	10/19
Computer Literacy for Support Staff	10/5
Medical Terminology I	10/20

*Adult Education* 496-6211

*Training and Development Services Program* 496-6211

Ongoing fall registration  
Late registration August 25, 1987

Now available on share training FY 88 Training Center courses

Access Wylbur and enter SHARE TRAINING  
First time users only, enter:  
x fr &ags2ugL.@@share(setup) on file37

## Bond Drive Prize Winners

This year's U.S. Savings Bond drive netted almost 600 new bond buyers at NIH and more than 200 people increased their monthly allotments from previous years.

Area merchants donated movie tickets, dinners, gift certificates, antiques or pizzas so that NIH'ers would have another good reason to buy bonds—prizes.

Barbara Murray, NCI, won two round trip tickets anywhere American Airlines flies, courtesy of Ober United Travel, and Linda Roberts, NIEHS, won two round trip tickets on USAir, compliments of USAir. Saundra Tabron, NLM, won the use of the sky suite at the Capital Centre for the Ice Capades, courtesy of Abe Pollin.

Ken Cooke, NIAID, donated a \$100 gift certificate from his antique business "Kenti-ques" to winner Laverne Patterson, CC. R&W donated a \$50 gift certificate to winner Robert Knickerbocker, NINCDS, and \$25 gift certificates to winners Dr. Daniel Cowell, CC, and Anna Lee Howard, NIEHS.

Dinner or lunch at O'Donnell's was won by Joyce Eide, CC; Keturah Blom, NIDDK, won dinner or lunch at Asti Roseto. Large

## 'Medicine for the Layman' Lectures Kick Off 11th Season on Sept. 22

The Clinical Center kicks off the eleventh season of "Medicine for the Layman" on Sept. 22 with a lecture on the "Risks of Heart Disease."

It will be followed by "Stroke Update," Sept. 29; "Premenstrual Syndrome: Facts and Myths," Oct. 6; "AIDS: Can I Catch It?," Oct. 13; "Alzheimer Disease," Oct. 20; and "Osteoporosis," Oct. 27.

Medicine for the Layman is a series of free lectures on health and disease presented by NIH physicians. It is held from 8 to 9 p.m. in Masur Auditorium, Bldg. 10. Each lecture includes a slide presentation geared toward the layperson.

Dr. William Castelli, medical director of NHLBI's Framingham Heart Study, will present "Risks of Heart Disease." He will discuss the role of cholesterol in heart disease, including what food groups have higher cholesterol levels than others; the partnership between proper diet and exercise; and ways to avoid becoming a statistic of one of the top killers in this country.

"Stroke Update" will be presented by Dr. Michael Walker, NINCDS, who will review what happens in stroke, possible causes, diagnosis, treatment and rehabilitation, and prevention. He will also examine one of the leading problems challenging neuroscientists today: how the brain recovers, and what physicians, patients and family members can do to encourage recovery. Walker will consider research options with new technologies, including positron emission tomography (PET) and neurosonology and will discuss studies with aspirin and endorphin.

Walker will be followed by Dr. David Rubinow, NIMH, who will address "Premenstrual Syndrome: Facts and Myths." He will explore the behavior relationship between premenstrual syndrome (PMS) and the normal menstrual cycle. He will also define PMS, the

symptoms, their severity and the timing with respect to menstruation. Rubinow will examine methods of measuring symptomatic changes that occur, the role of hormone studies and the relationship of PMS to major psychiatric syndromes. He will discuss possible treatments for PMS such as synthetic progesterones, drugs, and vitamin B6.

Dr. David Henderson, Clinical Center hospital epidemiologist, will separate fact from fiction in his presentation, "AIDS: Can I Catch It?" He will discuss rumors about the transmission of this fatal disease, including the risk of casual contact and the risk to family members of AIDS patients.

Although Alzheimer disease is not an epidemic, it does have serious implications for our aging society as well as for Alzheimer patients and their families. Dr. Trey Sunderland, NIMH, will discuss whom the disease strikes, early symptoms, myths, and diagnosis in his lecture "Alzheimer Disease." He will also describe environmental and genetic theories, including the link between Alzheimer disease and Down syndrome. He will discuss the future prognosis in terms of costs to individual families as well as to society in general, and research prospects including partial brain transplants.

The 1987 series will end with "Osteoporosis" by Dr. Lawrence Shulman, director of NIAMS. He will talk about specific causes of the disease, including menopause and lack of calcium. His discussion will cover estrogen replacement therapy, increased calcium intake, daily calcium requirement, new modes of treatment, and ways to prevent fractures.

For further information about the Medicine for the Layman series, call Clinical Center Communications, 496-2563. Employees are just as welcome at these talks as the public.—  
Colleen Henrichsen □

pizzas from Pizza Hut and Asti Roseto were won by CC'ers Rosa Tiller and Juanita Fisher.

Four movie tickets, courtesy of Roth's Theaters, were won by NIAID's Ruth Browne, and Giant Foods donated a \$10 gift certificate to winner Dave Chicchirichi, NIA. C. Warren Pope, NIEHS, won a Schaeffer desk pen set compliments of Regional Office Supply in Bethesda.—Susan Gerhold



Are you sure you want to give up that last raffle ticket?, says John Maboney (r), to Philip Amoruso, coordinator of the 1987 Savings Bond Campaign at NIH. Maboney, NIH associate director for administration, said that the raffles were part of an incentive program to sign up new bond buyers or increase monthly allotments of existing bond holders.

Set Aside Sept. 11

## Plans for Employee Day Finalized

If the amount of enjoyment to be gained by employees attending Employee Recognition Day on Friday, Sept. 11, is in proportion to the amount of time spent by the committee that planned the day, a whopping good time will be had by all.

For the past several months, a committee staffed by, among others, the *Record*, has met every Monday morning in a selfless quest to make sure every NIH employee who turns out for this once-in-a-century event has a fine time.

First, some details on the day. Like most birthday celebrations, it will include free cake and ice cream. There will also be two bands (a reggae group and "Street Life," the group that entertains at the Camp Fantastic barbecues each summer behind the Clinical Center), door prizes, clowns, jugglers, a bagpiper, balloons, games and foods of all kinds. NIH Director James Wyngaarden will deliver welcoming remarks and be joined by some celebrities, including Rep. Connie Morella.

The event begins at 11 a.m. and lasts until 2:30 p.m. If the weather is nice, all activities will be held in the grassy area near parking lot 41B and the tennis courts. To get there, walk toward the Lister Hill Center (Bldg. 38A) and hang a right. Or ride NIH buses and shuttles that will run continuously throughout the day, including to and from rental buildings (Landow, Blair, Westwood, etc.) If it rains, the celebration will move indoors to the Clinical Center. Signs posted at the main CC entrances will guide employees to the various activities.

Employees should note that earlier stories in the *Record* and Clinical Center *Closeup* stated that the courtyard of Bldg. 31 would be the location of the event in case of rain. That is no longer the plan. The CC has plenty of open space for the activities if it rains and has been generous enough to welcome us in that event.

What awaits employees who come to the hundred-year celebration? The door prizes alone should coax many to come. They include a video cassette recorder donated by the NIH Credit Union, two free airline tickets to anywhere in the continental United States, and a year's worth of sports entertainment tickets from the R&W Association.

A wide variety of foods from local restaurants will also be an attraction. Free popcorn will also be available, courtesy of the Blind Industries of the State of Maryland.

THE WHITE HOUSE AUG 1 P 3: 03  
WASHINGTON

August 3, 1987

EXECUTIVE SECRETARIAT  
HIN

Dear Dr. Wyngaarden:

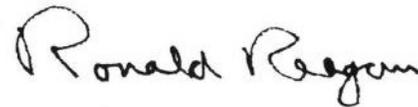
I truly valued my visit to the National Institutes of Health on the occasion of its centennial observance. It was a pleasure to greet members of the Presidential Commission on the Human Immunodeficiency Virus Epidemic and to be briefed on the status of AIDS research and treatment. I particularly appreciated visiting the Pediatric Ward.

You and your colleagues deserve great credit for your dedicated efforts on the AIDS virus, and I want to reiterate my Administration's commitment to helping find a remedy for AIDS. As medical personnel continue to search for a cure, the Federal Government pledges ongoing financial aid in the battle to conquer this deadly disease.

Please accept my sincere thanks for the laboratory coat bearing the NIH patches, the personalized doctor's coat, and the framed photographs. I'm grateful to you and your associates for the goodwill that prompted your special remembrances.

Nancy joins me in sending you our best wishes for continued success in your vital work.

Sincerely,



### Presidential Praise

President Reagan sent a letter of thanks to those at NIH who helped smooth the way for his recent visit. The letter was addressed to NIH director James B. Wyngaarden but includes thanks for a number of mementos he collected during his July 23 visit.

Every employee at NIH is welcome to this event marking "a century of caring." An invitation should already be in the mail to all workers. Bring that invitation with you to the celebration—it includes your door prize ticket stub and a pass for free ice cream.

While all are welcome, NIH recognizes that not every employee will be able to attend this event; some have jobs that can't be abandoned, even for an official function. Supervisors should be as generous as possible, however, in encouraging attendance.

For those unable to make it to Employee Recognition Day, despair not. Full coverage of

the affair will appear in the following issue of the *Record*.

Further information about the day may be obtained by calling the Office of Centennial Activities, 496-0608. This event is endorsed by the NIH Centennial Committee, NIH Division of Equal Opportunity and NIH Cultural Groups. □

*They that can give up essential liberty to obtain a little temporary safety deserve neither liberty nor safety.—Benjamin Franklin (1759)*