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The NIH Record

SBIR Funds Boost Laser Company

NIH Grants Help Candela Shine

By Carla Garnett

If a light bulb shines suddenly with the hint of every great idea, then the Candela Laser Corporation must be a whole lot brighter this year.

Not only did the 17-year-old company experience its most significant year in 1987 with a \$15 million forecast for 1988, but its most recently marketed medical product, the Flash Pump Dye (FPD) Laser, is being hailed by dermatologists as one of the most successful treatments to date for PWS, or Port Wine Stain.

Only five years ago, Candela, a Massachusetts-based laser company, considered itself a small business. These days, after a revenue increase of 280% more than last year and FDA approval of two medical products, business seems anything but small.

In 1983, Dr. Horace Furumoto, Candela president and inventor of the FPD laser, applied for funding to NIH's then newly established Small Business Innovation Research (SBIR) Program whose objective is to support research conducted by small businesses that will result in products, processes or technology with commercial applications.

"As a small company, we were able to build the hardware for our various projects," said Furumoto. "What we were not able to do was
(See CANDELA, Page 2)

AFCR Honors NICHD Scientist

Klausner Wins Young Investigator Award

By Leslie Fink

For the past six years, Dr. Richard Klausner has worked to uncover the ways human cells take in the iron they need while protecting themselves from the lethal effects of too much of the element. Although iron is essential for normal cell growth and division, it reacts strongly with cellular components, and too much of the substance can poison cells.

This week, the 36-year-old physician and scientist received the Outstanding Young Investigator Award for detailing the biological mechanisms that regulate how cells take in and use iron. Each year the American Federation of Clinical Research honors a young physician-investigator for his or her outstanding contributions to medical science. Klausner received the award May 1 at the federation's annual meeting in Washington, D.C. He
(See KLAUSNER, Page 4)

Medical Testing—An Inexact Science?

By Diana Pabst

You know the importance of watching your cholesterol, so you have it checked regularly. But sometimes the numbers fluctuate widely, even though you haven't changed your basic diet. What's going on? And what about screening for the AIDS virus and drug use, and many other common medical tests—how do you know they're reliable?

Often it depends on where those tests are done, according to a panel of experts who discussed accuracy in medical testing at a seminar for reporters last month at NIH.

Also important, they said, are when you had your last meal, what medications you're taking, whether you've been exercising or traveling, if you smoke and even the time of day the tests are done.

Medical testing should be done by "properly trained people doing the work in a certified lab," said Dr. George Lundberg, editor of the *Journal of the American Medical Association*, who moderated the panel. But many labs today don't meet those standards, the panelists acknowledged, and recent news reports about high rates of error at some facilities are undermining public confidence in the reliability of clinical tests.

The problem is that the number of labs is "burgeoning in response to the demand for more tests," but training and oversight are often lax, said Dr. Eleanor Travers, director of

pathology services for the Veterans Administration.

Last year, Travers said, some 3.4 billion clinical tests were done in this country, two-thirds of those in hospitals and the rest in doctors' offices and independent commercial labs. The industry has been growing by 10 to 20 percent a year, according to Lundberg, and shows no sign of slowing.

With the volume soaring, mistakes are more likely. Even in the best-run labs, test results are prone to errors caused by haste, specimen mix-ups and failure to use the equipment properly. "The instruments may be precise, but accuracy depends on human factors," said Dr. Mary Kass, chairman of pathology at Washington Hospital Center.

Many clinical laboratories are subject to state and federal regulations governing employee training and quality assurance. Some also adhere to guidelines established by accreditation groups. But hundreds follow minimum standards, and consumers and physicians face a tough time sorting out labs that are untrustworthy.

A recent Pulitzer prize-winning report by the *Wall Street Journal*, for example, found that one group of labs that processed Pap smears failed to detect cervical cancer or pre-cancer cell abnormalities in as many as one out

(See TESTING, Page 6)



NIH Cardiovascular Nurse Specialist Agnes Courtney-Jenkins, (r), describes her work to a Takoma Park Intermediate School student during Career Day, an annual collaboration of the Public Health Service and Montgomery County Public Schools. Since the development of the program in 1983, NIH employees have volunteered to share professional experiences with youngsters interested in medical, scientific and related career fields.

CANDELA

(Continued from Page 1)

the clinical research required for commercial approval. With the initial seed money provided by NIH, we were able to collaborate on that aspect with other hospitals."

The government defines a small business as any company organized for profit, independently owned and operated, with its principal place of business in the United States. The company must not have more than 500 employees, including all affiliates. Under these definitions, Candela is still a small business.

"The Candela laser project was one of the first grants we awarded," said Lily O. Engstrom, director, Office of Special Programs and Initiatives, Office of Extramural Research, "and we definitely count it as a success story."

Parade Magazine's Intelligence Report recently lauded the FPD laser as an effective treatment for PWS, a benign skin discoloration present at birth.

According to the article, the dermatological laser emits energy that gradually fades skin stains, making them less noticeable and sometimes eliminating them altogether.

Dermatology is only one of the areas in which the FPD laser has succeeded. The FDA recently approved commercial use of the laser in lithotripsy, a treatment of gallstones in which the stones are broken up by the laser's rays. Candela has also marketed a similar device to treat kidney stones.

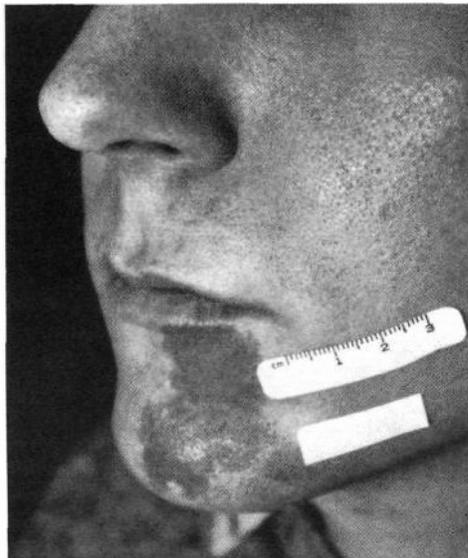
Over a period of four years, NIH has awarded Candela six Phase I, or initial research grants. Three of the six projects culminated in the more competitive, harder-to-earn Phase II grants. In total, Candela has earned more than \$1.5 million in NIH-supported grants.

The newest NIH-supported project is being tested in collaboration with Massachusetts Eye and Ear Infirmary. The project involves a laser procedure that may stop or reduce macular (central part of the retina used essentially for reading vision) degeneration due to aging.

"In 1983, Candela was a one million dollar company with about 17 employees," recalled Engstrom. "Now it is forecasting \$15 million sales and has approximately 135 employees. It really has grown, thanks in large measure to the SBIR Program."

Candela's expansion included hiring an impressive multinational management team and broadening manufacturing capacity to accommodate all medical sales for the next 2-3 years.

"We really are a textbook case," remarked Furumoto. "It seems that in our case, Congress' purposes were well served. For a small



A patient with a Port Wine Stain on his chin may benefit from treatment with a Candela laser.

business to be able to finance clinical research on the level we have is amazing. NIH, through the SBIR program, afforded us that chance." □

Research Day Set for September

Plans are underway for the NIH to sponsor its second annual intramural Research Day. The intent of this festive occasion is to give junior and senior scientists from the various institutes an organized but informal opportunity to exchange research ideas. Scheduled for Tuesday, Sept. 27, Research Day '88 so far includes three morning symposia, 20 afternoon workshops, and more than 100 research posters to be displayed by intramural scientists throughout the day. An evening picnic with live music will cap off the event.

Research Day focuses on fostering crosstalk and community spirit among senior and postdoctoral scientists throughout NIH, stimulating new collaborations between institutes and offering a view of intramural research to members of the NIH extramural staff. The three concurrently running morning symposia will be devoted to Cell Signalling Mechanisms, Mechanisms of Gene Regulation, and the Molecular and Cell Biology of the Nervous System.

Although centennial activities precluded Research Day last year, the 1986 event was hailed as a great success with more than 1,000 participants. So save Sept. 27, and look for more details in the *Record* early this summer. □

URC Offers Literature Search

The NIH User Resource Center is implementing a PC Literature Search Service and needs your help evaluating its usefulness.

The service is a database of articles and letters from magazines and other publications about microcomputers. It provides the micro-computer user with a tool for easily performing literature searches at no cost in the URC.

The database includes more than 3,000 abstracts from the following eight magazines, all of which are available at the URC. The abstracts are provided on a quarterly basis and are drawn from publications during the last 3 to 6 months:

PC World, PC Technical Journal, PC Magazine, Programmer's Journal, InfoWorld, PC Week, Byte, Personal Computing.

The service allows the user to search for articles using keyword, author, title, magazine, issue and micro-summary fields that can be quickly explored.

The service will be implemented in May and continue through August, at which time final consideration for continuation of this service will be made based upon your evaluation. □

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NIDR Hosts Dental Student Research Conference

By Mary Daum

The lab was dark and somewhat crowded. Some of the people had to crane their necks to get a better view. In the dim blue light from the computer monitors, many of them scribbled notes. And as their group left the Diagnostic Systems Branch of the National Institute of Dental Research, a few stayed behind, as they had in other labs, to ask questions.

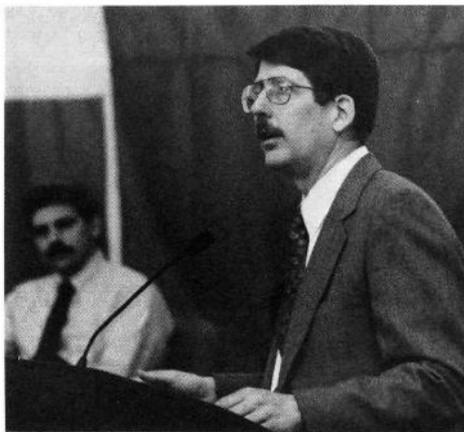
They came to learn about dental research and about how they might fit into its future.

Eighty-one dental students chosen by the deans of the United States and Canadian dental schools came to NIDR for the 24th annual ADA Dental Student Research Conference on Apr. 10-12. The conference was jointly sponsored by the American Dental Association (ADA), the Warner Lambert Oral Health Products Group, and participating dental schools and was hosted by the NIDR as one of its 40th anniversary special events.

The purpose of the conference, entitled "The NIDR: Forty Years of Partnership with the Profession," was to acquaint outstanding dental students with recent advances in dental science and opportunities available in dental research. The student representatives are usually involved in research projects or have expressed an interest in research careers. Upon returning to their schools, they will share the information they have gathered with their fellow students.

"It's a good chance to meet people involved in clinical research and see what opportunities are out there," said Marc Bowers, a third-year student at Northwestern University Dental School. For some students it was just a logical stop on their way to an already chosen career in dental research. "The main reason I went to dental school was to become involved in research," said Katherine Merrill of the University of Alabama School of Dentistry.

The students met with dental scientists, educators, and administrators and learned about the educational opportunities available for advanced training in academic dentistry and dental science. Presentations were made on everything from staff fellowships offered by NIDR to the newest research being done on the oral aspects of AIDS. In addition to speakers from NIDR, the students heard presentations from representatives of the ADA, the American Association for Dental Research, the American Association of Dental Schools, and Warner Lambert Co. Additionally, the ADA arranged a dinner for the students at the National Democratic Club that featured an address by Congressman Steny Hoyer of Maryland. They also were treated to an evening bus



Dr. Preston A. Littleton, Jr., NIDR deputy director, addresses students and panel at the recent Dental Student Research Conference.

tour of Washington, D.C.

Students were repeatedly encouraged to seek out NIDR staff and ask questions. "This meeting is a chance for you to meet with people who are involved in dental research. Go up to them and talk to them. Ask them questions. That is the purpose of the conference," said Dr. Preston A. Littleton, Jr., deputy director of NIDR and moderator of the conference.

One of the highlights of the conference was a speech by Dr. Harald Loe, NIDR director, who spoke on advances in dental research during the last 40 years and addressed the future role of dental researchers.

Loe clearly illustrated the importance of research when he discussed the fluoride story. The 15-year Grand Rapids water fluoridation project, which grew out of several decades of dental research, cut in half the rate of tooth decay among Grand Rapids schoolchildren and firmly established water fluoridation as a safe, effective, and economical public health measure. As a result of this discovery, it is now estimated that 250 million people in 31 countries in the world receive the benefits of water fluoridation.

"The investment in fluoride research is paying off with a remarkable decline in caries," said Loe. He also discussed the many complex challenges that future dental practitioners and dental researchers will face.

The speech sparked a lively question and answer session on the changes taking place in dental education and practice. Loe stated that he is strongly in favor of altering the dental school curricula to give increased attention to the basic sciences. A dental student's education must be broadened, he said, to prepare

future dentists as "physicians of the mouth" who will manage and treat the full spectrum of oral conditions and diseases.

Pain research, bone research, research on better diagnostic methods for periodontal diseases, and oral health promotion research—these were only a few of the topics covered during the lectures or the whirlwind tour of various NIDR laboratories and clinics. The latest treatment for xerostomia (dry mouth), new insights on dental implants, and infection control were all subjects discussed on the tour through the dental clinic.

A panel discussion, entitled "Preparing For and Establishing Careers in Dental Research," was one of the most popular events at the conference. The panel members were dentists currently preparing for or early in their careers in dental science, who offered advice on seeking out the possibilities that exist to combine both clinical and research interests.

"Research offers the kind of challenge that you won't find in any other field," said Dr. Kenneth Hargreaves, staff fellow at NIDR. "Take the opportunities you are offered, grab the bull by the horns and find a role model or mentor who can help guide you in your career decisions."

Many already seemed to have made their decision. After panel discussions, speeches, and during coffee breaks, students surrounded members of the NIDR staff expressing their interest and thanks and asking "just one more question."

After the last question was asked and the last picture taken, the students prepared to return to the many places from which they came; from throughout the U.S. and as far away as San Juan, Puerto Rico, and British Columbia, Canada. The organizers of the meeting are certain that NIDR will see many of the participants again in the future as either intramural or extramural investigators. □

Free Scientific Equipment

The Scientific Equipment Rental Program, BEIB, DRS, is offering selected older scientific equipment to NIH intramural units at no cost. The instrumentation will be available for inspection beginning May 12 and will be released on a first-come, first-served basis.

All selections must be made by May 19. Selected equipment will be permanently transferred to your unit through the regular property transfer procedures.

The equipment must be viewed by appointment. For information on the equipment or to make an appointment, call Ed Wellner, 496-9748. □

KLAUSNER*(Continued from Page 1)*

shares the \$15,000 prize, donated by the Burroughs Wellcome fund, with Dr. William Chin of the Harvard University Medical School.

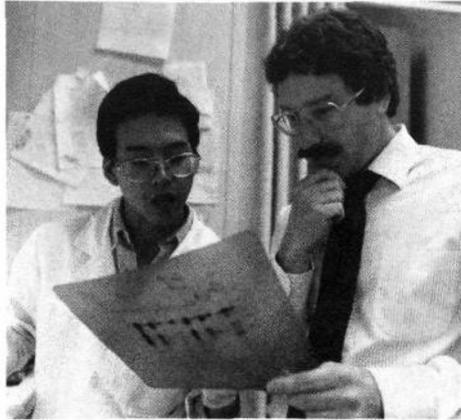
"Our bodies absolutely need iron," says Klausner, who heads the Cell Biology and Metabolism Branch at the National Institute of Child Health and Human Development. "But because iron is both essential and deadly, the amount a cell uses must be closely regulated." Indeed, errors in this process appear to underlie the disease hemochromatosis, a common inherited disorder in which cells lose their ability to handle excess iron. Knowing how cells control the amount of iron they use will also shed light on normal life processes, such as the immune response and early fetal development, that rely on orderly cell division.

According to Klausner, cells often must undergo tricky maneuvers to procure the raw materials they need for growth and division. Iron, for example, travels through the bloodstream bound to a carrying protein called transferrin. Before a cell can use iron, the element must be taken in and separated from its carrier.

Receptors on the cell surface act like landing pads on which transferrin and its passenger, iron, dock before the entire complex is transported inside the cell. Klausner and his colleagues showed that in a specialized cell compartment called the endosome, iron and transferrin are split apart. By characterizing in detail events inside the endosome, Klausner resolved a longstanding scientific question about the fate of transferrin and its receptor. Following the movements of these components throughout the cell's interior, Klausner and his group showed that some of the molecules are shuttled back to the cell surface, while others stay inside the cell where they may be used or destroyed.

Since the transferrin receptor is iron's gateway into the cell, the number of these receptors sitting on the cell's surface determines how much iron gets carried inside, says Klausner. When the cell has an ample iron supply, it limits quantities coming in by halting production of transferrin receptors. This, Klausner showed, is one way a cell brings in the iron it needs "without killing itself," he says.

Searching for ways the cell controls these checks and balances led Klausner to discover a second, backup scheme in the cell's genetic material. "I'm interested in receptors, but I'm willing to follow a system where it goes," says Klausner. That led him to study the makeup and function of genetic material itself, "which is really very far from receptors."



Young Investigator Award recipient Dr. Richard Klausner (r) analyzes the molecular makeup of cell components with medical student Eric Hsi.

Because the cell can use only so much iron at a time, any extra amount of the potentially toxic element must be stored safely. That job goes to an iron-neutralizing protein called ferritin. Klausner and his coworkers found that a certain segment of the genetic material ribonucleic acid, or RNA, responds to large amounts of iron in the cell by signalling for production of the protective ferritin. Newly made ferritin then sequesters excess iron, preventing it from harming the cell. Another iron-responsive genetic element also helps the cell adjust its iron content by altering the number of transferrin receptors that rest on its outer membrane.

These iron-responsive elements, or IREs, represent the first example found in humans of an RNA region that regulates the expression of a gene. Genetic regions that control gene activity in higher animal cells have until now only been found to exist as segments of DNA.

Defects in the way a cell responds to iron may underlie the common genetic disease hemochromatosis, which affects about 1 in 400 to 800 Americans. Klausner and his colleagues have found that snipping out certain segments of an IRE wipes out its ability to trigger ferritin production when iron levels are high. "IREs explain the mechanism by which the amount of ferritin is regulated," Klausner says. "They provide us with a good place to begin looking for the genetic defect in hemochromatosis." He and his colleagues are now studying how well IREs from patients with hemochromatosis work and are comparing their structures with those from healthy people.

Klausner's serious interest in science began during his high school years in Yonkers, N.Y., when he studied physics, an avocation that took him on many day trips to nearby Columbia University. There he collaborated with scientists to work out the mathematic properties of particles that travel faster than

the speed of light.

Spending too much time out of the classroom kept him out of Harvard, Klausner says, "but Yale was more forgiving," and he graduated from that university with several honors. There he studied the physical properties of phage viruses and worked out the three-dimensional structure of the M13 virus, now commonly used in biotechnology. Yale recently chose Klausner to receive this year's Award for Advancement of Basic and Applied Research.

In 1973, Klausner entered Duke University Medical School. In his third year, he co-authored the textbook *Medical Immunology*, an undertaking that first acquainted him with the National Institutes of Health. "After researching the book, we had all these questions we hadn't been able to resolve, so we spent a week at the NIH just walking into people's offices and asking about them."

After medical school, Klausner trained in internal medicine at Massachusetts General Hospital. After he co-authored a second book entitled *Medicine*, the allure of research drew Klausner back into the laboratory. At Harvard he began studying the physical and biological properties of cell membranes with Dr. Morris Karnovsky. "I had read a paper of his, so I stopped by his office one morning to ask him some questions about it," says Klausner. "I didn't know who he was; he didn't know who I was, but we talked until three in the afternoon." A week later, Klausner became a member of Karnovsky's lab.

Klausner came to the NIH in 1979 and was appointed head of the NICHD's new Cell Biology and Metabolism Branch in 1984. In addition to his laboratory research, he is active in clinics at both the NIH and the Uniformed Services University of the Health Sciences, where he also teaches.

Klausner serves on the Sarnoff Foundation's scientific advisory board, the cell biology study panel of the National Science Foundation, and several editorial boards. He is a member of the American Society for Clinical Investigation and the education committee of the Howard Hughes Medical Institute. □

An Evening With I. F. Stone

The First Luke Wilson Memorial Lecture, "Socrates, Me and My Academic Critics: An Evening with I. F. Stone," will be presented Wednesday, May 11 at 8 p.m. in the Lipsett Auditorium.

I. F. Stone is the author of *The Trial of Socrates*, a controversial reexamination of the most famous free-speech case in history.

The evening is sponsored by the Foundation for Advanced Education in the Sciences and the Institute for Policy Studies. The lecture is open to the public. □

Kety, Sokoloff Share NAS Award

Two scientists at the National Institute of Mental Health have won the first National Academy of Sciences Award in the Neurosciences.

The award was presented jointly on Apr. 25 to Drs. Seymour Kety and Louis Sokoloff for their outstanding achievements in neurochemistry and clinical medicine through the development of techniques for measuring brain blood flow and metabolism.

Kety is a senior scientist in NIMH's intramural research program; Sokoloff is chief of the institute's Laboratory of Cerebral Metabolism.

The prize, endowed by the Fidia Research Foundation, consists of \$15,000 and a gold medal. It is given once every three years in recognition of extraordinary work in the neurosciences.

Kety's seminal contribution came in the late 1940's, when he and C. F. Schmidt developed a technique using nitrous oxide to measure oxygen consumption and cerebral blood flow in humans and other animals. With this quantitative measurement, Kety was able to show that the healthy brain consumes 20 percent of the body's total oxygen, and that deep anesthesia and coma cut the brain's oxygen consumption in half. Kety also demonstrated that the brain's utilization of oxygen remained normal during sleep, contradicting the assumption that brain metabolism slowed down in this state. The results of subsequent research showing vigorous neuronal activity during sleep have borne out Kety's findings.

Kety also showed that the human brain depends almost entirely on glucose as its metabolic substrate, a fact that was to have great importance for the later work of Louis Sokoloff. After making several more fundamental discoveries about brain metabolism in health and disease, Kety moved into the study of schizophrenia. His research failed to reveal any abnormality in the cerebral metabolism of schizophrenic patients; this spurred him on to further investigation of the disease, culminating in current genetic studies.

Sokoloff collaborated with Kety for several years in studies of cerebral blood flow. In 1975, Sokoloff revealed a new technique to measure the metabolic rate of discrete brain structures using radioactive deoxyglucose. This substance enters the brain at a rate proportional to that of glucose, but unlike the natural substrate, deoxyglucose is trapped within brain cells and accumulates in amounts proportional to the cell's metabolic rate. Using autoradiography, Sokoloff was able to visualize radiolabeled brain tissue and thus examine microscopically changes in metabolic activity

of specific groups of neurons according to the amount of deoxyglucose they contained.

The deoxyglucose technique has enabled other researchers to check results and test interpretations arrived at from other approaches. Neurophysiologists David Hubel and Torsten Wiesel, for example, proposed the existence of specific columns of occipital cortex cells responsible for visual dominance; metabolic activation of these cells by light has been dramatically confirmed by Sokoloff's technique.

Sokoloff himself has extended the technique into positron emission tomography (PET), which is currently used to image the human brain. By labeling deoxyglucose with positron-emitting isotopes, and then using PET technology, one can obtain a metabolic, rather than simply structural, map of the brain. The combination makes a powerful diagnostic tool—PET scanning measurement of deoxyglucose has been successfully applied to the diagnosis of epilepsy subtypes, allowing physicians to make a rational selection of candidates for surgical treatment. This technique is now being applied to the diagnosis of other neuropsychiatric diseases. □

ADB System Available on Macintosh

As more and more people at NIH are buying Macintosh personal computers for their offices and labs, the question has often come up about accessing the administrative data base (ADB, i.e., DELPRO) system on the Mac. Recently, this became possible through the efforts of John Parks and Dennis George of DCRT and Dale Graham, Steve DeCherney and Gilda Dickstein of NIDDK.

In addition to the hardware, which includes a recent model Macintosh Plus, SE or II, a hard disk, a modem (preferably a 2400 baud), and a separate data telephone line, you will need the software, a program called DEC VT 100 emulation (Versaterm Pro). You will also need a booklet entitled *NIH Protocol Conversion Facility*, which is available at the Technical Information Office, Bldg. 12A, Rm. 1015. This will show you the different key sequences and will provide other valuable information.

Once you have the necessary hardware and software and have established DCRT accounts and registered initials and an ADB user I.D., all it takes to authorize use is a memo to Dennis George, Bldg. 21A, Rm. 4041, requesting access to the ADB system.

For further information, call Dale Graham, 496-2483, for technical details about hardware and software or DCRT, 496-0506, for details on accessing the protocol converter. □

Kupferberg Receives Epilepsy Research Awards

Dr. Harvey Kupferberg, who oversees the preclinical testing of anticonvulsant drugs for the National Institute of Neurological and Communicative Disorders and Stroke, will receive the 1988 Epilepsy Research Award for outstanding contributions to the pharmacology of antiepileptic drugs. The award is sponsored by the American Society for Experimental Biology and the International League Against Epilepsy (ILAE), and is given annually to scientists who have made major contributions leading to better clinical control of epileptic seizures.



Dr. Harvey Kupferberg

He will receive the award, which includes a \$1,000 honorarium, on May 4.

Last September, the ILAE and the International Bureau for Epilepsy also honored him with their Ambassador for Epilepsy Award for his contribution to the international struggle against epilepsy.

Kupferberg has directed the preclinical pharmacology section in the NINCDS epilepsy branch since 1982. He coordinates the screening of potentially therapeutic drugs in laboratory animals to determine which are safe and effective enough to test in humans. More than 13,000 compounds submitted by industry and academia to the NINCDS Antiepileptic Drug Development Program have been screened since Kupferberg joined the section in 1971.

He received his Ph.D. in pharmacology in 1962 from the University of California at San Francisco. He first came to NIH in 1963 as a staff fellow and remained until 1965, when he started a teaching career at the University of Minnesota. Upon his return to NIH in 1971, he joined the University of Maryland's College of Pharmacy as an adjunct associate professor. In 1980, he became an adjunct professor, a position he still holds. □

TESTING CAN DEPEND ON THE TESTER

(Continued from Page 1)

of four cases. And last year, when New York State regulators looked at labs that offered worksite drug screening, they found an error rate three times higher than that of labs that didn't offer the service, according to a *New York Times* article.

Alarmed by such reports, Congress has held hearings and the American Medical Association and the General Accounting Office, among others, are investigating the issue.

At the seminar, the panelists said what is needed to improve the situation, in addition to tougher regulations and many more trained personnel, are better clinical standard reference materials. These are "chemical yardsticks" that can be used to verify the accuracy of medical test results—much like baking a test cookie to make sure the temperature of the oven and the consistency of the dough are right.

These reference materials consist of certified amounts of the components being measured. Lab technologists use them as a gauge to check for malfunctioning equipment; "bias" such as contamination of samples or faulty analysis; and consistency of standards from day to day.

Dr. Harry Hertz, director of the Center for Analytical Chemistry at the National Bureau of Standards, said his agency recently released new clinical references to use in tests for marijuana use and blood cholesterol levels. A similar standard reference is being developed for detecting cocaine use.

A critical part of his group's task, Hertz said, is deciding how "sensitive" such tests should be. When testing for marijuana byproducts (or metabolites) in a urine specimen, for example, what reference level should be adopted to screen out only likely users of the drug and not those who simply may have been in the same room with someone who smoked it?

In discussing accuracy in medical testing, it is important to differentiate the kind of tests being done, noted Richard Flaherty, vice president of the Health Industry Manufacturers Association. In clinical tests—blood and urine samples, for example—a greater degree of quality control can be built into the equipment, he said. But in anatomical tests—such as biopsies, Pap smears and tissue cultures—achieving a high level of accuracy depends on the skillful analysis of trained professionals such as pathologists. Said Flaherty: "Technology just produces the numbers. Those numbers have to be interpreted."

Apart from quality of equipment and personnel, there are many physiological,



environmental and cyclical (time-related) factors that influence the accuracy of clinical test results—often more than we realize, according to Clara Sliva, supervisory medical technologist at NIH.

Use of nicotine, caffeine, prescription drugs, and even vitamins affects the composition of body fluids. Exercising before a lab test increases the blood sugar. In different regions of the country, results may show a higher concentration of lead from auto exhaust or the drinking water. It can even make a difference whether the patient was reclining or standing when the tests were done, and whether they were done in the morning or at night.

"Pre-testing variabilities should be controlled as much as possible," Sliva said. "The variability of tests due to biological factors—age, diet and exercise, for example—is often greater than the variability of the instrument running the test."

Dr. Christopher Frings, a laboratory consultant and toxicologist who served on the panel, said eating a high-fat meal before a lab test can be expected to change a patient's true cholesterol count by about 10 percent; the level of triglycerides (a fat) may be skewed by many times that.

The seminar was sponsored by 13 organizations, including the National Bureau of Standards, the Centers for Disease Control, NIH and several medical associations.

The briefing is a prelude to a technical meeting, "Clinical Laboratory Measurements: Accuracy and Patient Needs," that will be held Oct. 19–21, 1988, at the National Bureau of Standards. □

DHHS Honors Six NIH Staff

Six NIH staff members will be honored by DHHS Secretary Otis R. Bowen during the Departmental Honor Awards Ceremony to be held May 4. They are:

Distinguished Service Award (Scientific Category)

Dr. Janet W. Hartley
Head, Viral Oncology Section
Laboratory of Immunopathology, IRP, NIAID
"For thirty-four years of distinguished research in virology at NIH, including major contributions to the understanding of retroviral biology."

Departmental Management Award (Executive Management Award Category)

Dr. Richard H. Adamson
Director, Division of Cancer Etiology, NCI
"For outstanding scientific and administrative leadership in the Division of Cancer Etiology and contributions to affirmative action and EEO goals."

Dr. Suzanne S. Hurd
Director, Division of Lung Diseases, NHLBI
"For outstanding leadership that has significantly advanced the Department's extramural research program in lung diseases and establishing new directions in the area of AIDS research."

Secretary's Special Citation for Ten Outstanding Employees of the Year

Linda S. Edwards
Grants Technical Assistant
Grants Management Section, EP, NIDR
"For exemplary performance in the processing of grant applications and awards and for dedicated service to the National Institute of Dental Research."

Departmental Outstanding Handicapped Employee of the Year Award

Julie M. Hudler
Formerly—Dental Hygienist, Clinical Investigations and Patient Care Branch, NIDR and now with NCI
"For sustained high performance in providing preventive oral health care and participation in clinical research."

Departmental Suggestion of the Year Award

Dr. G. Wayne Wray
Health Scientist Administrator
Division of Extramural Affairs, Review Branch, NHLBI
"In recognition of a suggestion that substantially reduced the printing and postage costs associated with the NIH Guide for Grants and Contracts." (\$490,000 savings resulted during first year of adoption of new system.) □

Koshland To Give Dyer Lecture on May 18 in Masur

Dr. Marian Elliott Koshland, chairperson of the department of microbiology and immunology at the University of California at Berkeley, will present this year's R. E. Dyer Lecture on Wednesday, May 18. The lecture, titled "Mechanism of Peptide Hormone Signaling: An Immunoglobulin Gene Model," will take place at 3 p.m. in the Clinical Center's Masur Auditorium.

Koshland has developed a model system for studying how an immature cell becomes a cell with a specialized function. An immature cell has several potential developmental pathways. As the cell's genes are turned on and the process of specialization begins, the cell becomes committed to only one pathway: for example, it will become part of an arm, an eye, or a heart, or will secrete only one kind of antibody (a molecule that helps fight infections).

Particularly interesting to Koshland is how hormones influence the specialization process. Her model system involves examining how binding of the hormone interleukin-2 to receptors on the B cell, an immune system cell, signals the nucleus to turn on certain

genes. Each gene encodes a "recipe" for a particular protein, and thus which genes are turned on and which are not determines how that cell will specialize.

Koshland became interested in immunology shortly before the end of World War II during her junior year at Vassar College. After graduating from Vassar, she attended the University of Chicago where she earned an M.S. in bacteriology and a Ph.D. in immunology. She carried out postdoctoral work at Harvard Medical School.

Subsequently, she worked briefly with the Manhattan District Atomic Bomb Project in Oak Ridge, Tenn., and then at Brookhaven National Laboratory in Upton, N.Y.

She began working at Berkeley in 1965, and for many years concentrated on studying the structure of different antibodies and why each develops to recognize only a specific foreign molecule. In 1970, she was promoted from a lecturer to professor of immunology. It was in the early 1970's that she discovered a new structural protein in a particular class of antibodies. The discovery of this protein, since

named the J chain, was an important contribution to immunology.

Koshland's continuous work on the J chain since its discovery has earned her worldwide recognition as a J-chain expert (and the nickname, "Dr. J.") She has found that the J chain helps link basic y-shaped antibody units, which consist of a mix of so-called heavy chains and light chains, into larger structures. It appears only in antibodies that contain more than one of the basic antibody units. In her model system of specialization, she is studying how hormone binding turns the J chain gene on.

Among other honors and achievements, Koshland is a member of the National Academy of Sciences and past president of the American Association of Immunologists. She has served on the national science board of the National Science Foundation, the advisory committee to the director of the National Institutes of Health, and the President's Biomedical Research Panel. She is also a past and present editorial board member of several leading biomedical journals.—Laurie K. Doepel □

Chaplain Kerney Honored by College of Chaplains

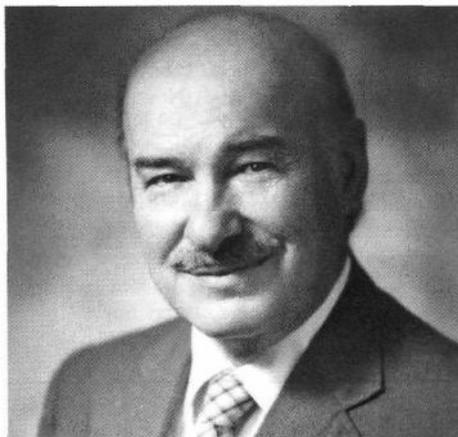
Chaplain LeRoy G. Kerney, chief of the Clinical Center's Department of Spiritual Ministry, was recently honored by the college of chaplains of the American Protestant Health and Human Services Assembly.

At the group's 41st annual convention held in San Francisco, Kerney received the Distinguished Service Award.

The award cited him for "more than 35 years of leadership" in pastoral care of institutionalized persons. The Distinguished Service Award is conferred upon individuals who, nominated by their peers and other health care professionals, have demonstrated a lengthy and outstanding service to pastoral care.

The college of chaplains is one of the country's largest professional associations of clergy serving as chaplains in institutions. It provides certification and credentialing for chaplains wishing to serve in private and public hospitals as well as in a variety of other settings. More than 1,800 chaplains in the United States are presently endorsed/certified by the college of chaplains.

Kerney is one of the organization's most senior members and was an important leader in its formation and growth through the 1950's and 1960's. In 1972, he served as the organization's president. In addition to the recognition he received as a Distinguished Service Award recipient, Kerney was also a keynote speaker at the organization's annual "Russell Dicks Memorial Breakfast."



Chaplain LeRoy Kerney

Russell Dicks was a pioneer leader and founder in the 1930's and 1940's of today's clinical pastoral education movement. In his honor each year, the college invites an individual who both knew and worked with Dicks and who has demonstrated expertise in chaplaincy to deliver an address to fellow chaplains on the theme of "sickness and pastoral care."

Kerney's speech, "Ministering to the Sick: A Touchstone to the Future," highlighted the passage of institutional pastoral care, its emergence as an ancillary service in most hospitals and its central role in education and community relations today. He concluded by

reminding his fellow chaplains that the heart of chaplaincy and pastoral care continues to be "the one-on-one relationship between chaplain and patient."

Kerney has served the Clinical Center as a member of Institutional Review Boards and as an active participant in various committees and groups. He has also been called upon regularly to provide invocations on special occasions—from the time that President Lyndon Johnson visited the Clinical Center until just recently when the assistant secretary for health and human services was sworn in. He has been chief of the Department of Spiritual Ministry since 1962 when he came here from service at the M.D. Anderson and Houston Institute for Religion.—Gary Johnston □

Annapolis Tour & Cruise

Join R&W as we set sail for Annapolis on Sunday, June 5. First we'll take a "Tour About Town," visiting St. John's College & Liberty Tree, the State House interior, City Dock, and the U.S. Naval Academy chapel.

Cost for the trip is \$20 per person, which includes transportation, tour, and cruise. Bus leaves from NIH Bldg. 31C parking lot at 9 a.m. sharp. To sign up, contact the R&W activities desk, Bldg. 31, 496-4600. Payment required upon reservation. Bus trip will be non-smoking. □

Dr. John I. Hercules, Sickle Cell Disease Official, Dies at Age 63

Dr. John I. Hercules, a scientific project officer in the Sickle Cell Disease Branch of the Division of Blood Diseases and Resources, NHLBI, died of chronic hepatitis Mar. 28 at the Clinical Center.

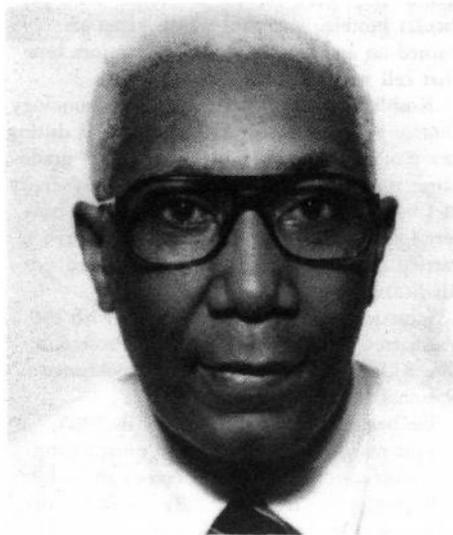
Hercules was born in Georgetown, Guyana, and came to this country to pursue his undergraduate education at Howard University, from which he received his B.Sc. degree in 1951. In 1965 he received his Ph.D. in microbiology at the Christian Albrechts University in Kiel, Germany, where he was the recipient of both the Andreas Lembke and the Max Planck Research Fellowships. From 1965 to 1971 he served as a virologist at Microbiological Associates in Bethesda as part of the NCI Special Virus Program.

In 1971 he joined NHLBI and in February 1972, transferred to the newly founded Sickle Cell Disease Branch as a health scientist administrator responsible for the overall planning, conduct and coordination of its scientific grants programs as well as for all phases of review, evaluation and development of the mission-oriented research program.

During the last 16 years, Hercules became increasingly one of the major architects of the scientific research program in sickle cell disease at the national and international level. He was chairman of the organizing committee of the First National Symposium on Sickle Cell Disease, held in Washington in June 1974, and later edited the published *Proceedings* for that meeting. In subsequent years he organized almost 20 other meetings and edited publications from a number of these. During the last months of his illness, he worked diligently to complete plans for a meeting of experts to deliberate on future research directions for sickle cell disease.

Hercules worked very closely with his colleagues, especially Dr. Clarice Reid and her associates, in NHLBI. He was particularly interested in developing pharmacological approaches to the treatment of this disease and worked tirelessly to promote research in this area. Hercules believed fervently in the importance of basic studies to the progress of sickle disease research and helped draw many excellent scientists into this area of work. He developed close ties to many scientists—in the NIH Intramural Program, throughout the nation and in many countries of the world—who acted as his consultants.

Hercules was an active member of St. Luke's Episcopal Church and served for sev-



Dr. John I. Hercules

eral years as a vestry member. He was a member of the Omega Psi Phi Fraternity and a number of other civic and professional organizations.

Survivors include his wife, Movita of Bethesda; one son, Dr. Warren Hercules, of Hampton, Virginia; one daughter, Ila, of Bethesda; three brothers, Basil, Patrick, and Wilfred of Long Island, New York; three sisters, Daphne Petrie and Sheila Walthour, of Long Island, New York, and Winifred Hercules of Washington, D.C.

A memorial fund to promote sickle cell disease research has been established in the Foundation for Advanced Education in the Sciences, Inc.; donations may be sent to the FAES/John Hercules Fund, Bldg. 60, Rm. 230.

DCRT Wins Honor

The DCRT Information Office recently won the award of merit in the D.C. Society for Technical Communication Technical Publications/Art Contest for its centennial poster, and *News and Features from NIH: Computers in Biomedical Research*.

The Society for Technical Communication is the world's largest professional organization dedicated to the advancement of the theory and practice of technical communication in all media. It has more than 80 chapters and branches in the United States and Canada, and elsewhere in the world, as well as individual members in many countries in Europe, Asia, and South America. □

New FERS Election Opportunity

Those who were eligible to convert to FERS during the open season that ended on Dec. 31, 1987, may, by electing to convert to FERS prior to June 30, 1988, qualify for exemption from the public pension offset on spouse benefits.

The Social Security Act provides for "public pension offset" for employees who retire from coverage under a public pension program that does not include Social Security as part of its overall package (such as CSRS). However, since both Off-Set CSRS and FERS are public pension programs that include Social Security, their participants retire from "Social Security covered" employment and are exempt from the offset provisions. "Off-set" provisions require that for every three dollars of CSRS annuity received, your spousal Social Security entitlement is reduced two dollars.

On Dec. 22, 1987, new legislation requiring five years of service under FERS before qualifying for exemption from public pension offset was adopted effective Jan. 1, 1988. Employees who filed FERS elections before close of business on Dec. 31, 1987, were exempt from the new five-year requirement. However, because of the timing of this Congressional action allowing only a nine-day period during which this enactment was to be publicized and acted upon, many employees missed this opportunity.

The Office of Personnel Management and the Social Security Administration have recently agreed to allow employees who were unaware before the close of the FERS open season on Dec. 31, 1987, to make a "belated election" before June 30, 1988, and thus be exempt from the "five year" requirement.

This has a significant impact for employees who are currently on HHS roles, are within five years of retirement, and have (living or deceased) spouses with significant Social Security covered earnings.

Generally speaking, in order to elect FERS at this time, you must:

- (1) have been eligible to convert to FERS during the last open season;
- (2) obtain a FERS Election of Coverage form, OPM 1555, from your BID personnel office; and
- (3) complete and return it to your BID personnel office no later than June 30, 1988.

Your election to FERS will be effective the beginning of the next pay period after filing in the BID personnel office.

A complete list of BID personnel offices is found in the NIH Telephone and Service Directory yellow pages, item 111. □



Dr. Anthony R. Kalica was recently appointed chief of the Interstitial Lung Diseases Branch, Division of Lung Diseases, NHLBI. He will be responsible for the overall planning and direction of the institute's efforts in interstitial lung diseases, including research on occupational and immunologic diseases, pulmonary vascular diseases, and respiratory failure. Prior to joining the NHLBI in 1983, he was a research microbiologist with the Laboratory of Infectious Diseases, NIAID.

Electronic Mail Seminar

The Computer Center's new electronic mail facility, ENTER MAIL, makes it possible for anyone with a personal computer and a modem or a computer terminal to exchange mail and files with individuals at NIH and at thousands of research and educational institutions worldwide. From NIH, using BITNET



is very inexpensive; the only charges are for editing and filing the mail—transmission is free. From BITNET, gateways provide access to other networks such as ARPANET.

A 2-hour seminar to demonstrate and discuss the features of ENTER MAIL will be held on May 11 at 9 a.m. If you would like to attend, please call 496-2339 to reserve a place.

Savings Bond Contests Make Everyone a Winner

Have you entered your guess in the Beautiful Bond Baby contest? Enter soon because time is running out. The contest closes May 4th. The winner will be one of the clever NIH employees who can detect similarities between the Bond Babies pictured in the April 19 *Record* and the adults they became. The winner, selected by a drawing from among the correct entries, will receive a \$100 U.S. Savings Bond from the NIH Credit Union. If the lucky winner is also a member of the credit union, then the credit union will also contribute \$25 to his or her account.

That is not the only way you can get lucky with bonds. They are one of the most highly recommended investments today, according to many professional financial advisors. There are many reasons for their popularity.

- **Tax Benefits:** Interest is exempt from state or local tax. Federal tax on the interest may be deferred.
- **Safety:** They are guaranteed by the U.S. Government. If lost or stolen they will be replaced.

- **Convenience:** Automatic payroll deduction of a small amount a pay period quickly builds to a large savings.

- **Competitive Yields:** Interest is based on 85 percent of the average yield on five-year Treasury securities. Even if interest rates go down, they will pay a guaranteed minimum interest of 6 percent.

There is even a third way you can get lucky with bonds. All new bond enrollees and all who increase their bond deduction will have their names entered in the Savings Bond Raffle. Prizes include more U.S. Savings Bonds, theater tickets, ballet tickets, Bullets tickets, Capitals tickets, Kings Dominion tickets, computer software and more. New prizes are being added daily. Many prizes mean lots of winners. The odds are good that you could be one of them. Hurry, this contest closes when the NIH Savings Bond Campaign closes, May 14.

So get lucky. Buy bonds. Even if you are not a prize winner, when you buy bonds you are a winner.

Live for Tomorrow— Have Your Blood Pressure Checked Today

May is National High Blood Pressure Month. The Occupational Medical Service is pleased to announce that blood pressure screening will be available to NIH employees at the following sites around campus:

May 5	CC, Outside 2nd Floor Cafeteria	9 a.m.—1 p.m.
May 9	Bldg. 30, Rm. 132	9 a.m.—1 p.m.
May 16	Bldg. 1, Wilson Hall	9 a.m.—1 p.m.
May 17	Bldg. 29, Rm. 1A09	9 a.m.—1 p.m.
May 20	Bldg. 12A, Rm. 3026	9 a.m.—1 p.m.
May 26	Bldg. 10 in Corridor outside Special Events Rm. 1C-174	9 a.m.—1 p.m.

Screening is also available in the ongoing OMS-sponsored blood pressure clinics at the following sites and times:

May 1-31	Bldg. 10—Clinic, 6C306 Main Health Unit	Monday: 1:15-4:15 p.m. Thurs: 8:15-11:15 a.m.
May 1-31	Westwood Bldg., Rm. 28	8 a.m.—4:30 p.m. (closed Tuesday after 2:30 and all day Thursday)
May 1-31	Bldg. 13, Rm. G-901	8 a.m.—4:30 p.m. (closed Tuesday and Wednesday afternoons)
May 5 and 19	Blair Bldg., Rm. 110	10 a.m.—12 noon
May 5, 12, 19, and 26	Federal Bldg. Rm. 5C12 May 5 and 19 May 12 and 26	1:30-3:30 p.m. 9-11 a.m.
May 3, 10, 17, 24 and 31	Bldg. 31, Rm. B2-B57	1-3 p.m.
May 4, 11, 18 and 25	Bldg. 38, Rm. B1-N144	2-4 p.m.

Take advantage of this opportunity to monitor your progress in fighting high blood pressure.

Library Proposes Journal Cancellations

Journal subscription costs in the NIH Library increased \$150,000 from 1987 to 1988—an increase far greater than the budget could foresee or cover. Therefore the library has checked usage of all journals with subscription cost of \$450 or higher and proposes to cancel those that showed no more than one use during the 2-year period 1986 and 1987.

Usage was indicated through a count made by the library's photocopy service.

The Library Advisory Committee has been consulted, and not only has given its approval, but is advocating a more stringent policy—cancellation of journals, including those costing less than \$450, that have had fewer than five uses in 2 years. A second review is now in process.

These special reviews are an acceleration of an ongoing review of the journal subscription list conducted during the past 4 years. All biomedical and research libraries are now wrestling with the problem of sudden and drastic journal cost increases, especially of European journals. Increases are partly due to changes in international currency rates that are unfavorable to the U.S. dollar. But they result largely from price increases imposed by publishers. These increases, often much higher than the inflation rate, seem to librarians to be unwarranted.

As the Library Advisory Committee has approved, the library proposes to cancel the following journals, which cost more than \$450 for 1988 and were used (photocopied) only once or not at all during 1986–87. Back volumes will remain in the library until further notice. Any comments should be made to Elsie Cerutti, chief, Reference and Bibliographic Services (Bldg. 10, Rm. 1L21; 496-1156).

Akademiia Nauk SSSR Doklady: Physical Chemistry (English Translation)

Angewandte Makromolekulare Chemie

Atmospheric Environment

Biomedical Engineering (English Translation)

Biophysics (English Translation)

Caryologia

Colloid Journal (English Translation)

Coordination Chemistry Reviews

Cytology and Genetics (English Translation)

Inpharma

International Journal of Electronics

Journal of Electroanalytical Chemistry and Interfa-

cial Electrochemistry With Bioelectrochemistry and Bioenergetics

Journal of Evolutionary Biochemistry and Physiology

Journal of Insect Physiology

Journal of Macromolecular Science. Part A. Chemistry

Journal of Magnetism and Magnetic Materials

Journal of Mathematical Physics

Journal of Modern Optics

Journal of Molecular Spectroscopy

Journal of Molecular Structure

Journal of Quantitative Spectroscopy and Radiative Transfer

Journal of Sound and Vibration

Journal of the Chemical Society. Dalton Transactions

Journal of the Chemical Society. Transactions I: Physical Chemistry

Journal of the Chemical Society. Perkin Transactions II: Physical Organic Chemistry

Journal of Vacuum Science and Technology

Mikrochimica Acta

Nuclear Instruments and Methods in Physics Research

Section A = 2

Section B = 0

Physics of Fluids

Polymer

Protoplasma

Separation Science and Technology

Soviet Journal of Developmental Biology (English Translation)

Soviet Mathematics: Doklady (English Translation)

Soviet Physics. Doklady

Soviet Physics. J E T P (English Translation)

Soviet Physics. Solid State (English Translation)

Soviet Physics. Uspekhi (English Translation)

Theoretical and Applied Genetics

USSR Computational Mathematics and Mathematical Physics

Zeitschrift fuer Kristallographie

Zeitschrift fuer Physikalische Chemie. Neue Folge (Munich Edition) □

Integrating IMPAC and CRISP

Do you need a quick report displaying specific information for selected grants? Do you ever need a CRISP abstract plus associated IMPAC information that is not on the CRISP file? The FOCUS steering committee has developed a system to handle these types of requests within minutes.

The committee will demonstrate its system on May 17 at 1:30 p.m. in Bldg. 12A, Rm. B51. The demonstration will last 1 hour. There will also be a 3-hour technical seminar for any NIH employee interested in learning the details of performing queries.

In brief, the committee has created a database that includes all pending grants in DRG's "pending" file, all active grants and contracts in DRG's "open" file, and all abstracts in the CRISP system. The information is stored on DCRT public access files and will be updated every night by DRG. Information is retrieved using FOCUS, a very rich database management system (FOCUS is not currently supported by DCRT or DRG). FOCUS contains an extensive report writing system; integrated graphics and statistics; a full functional PC version; and many other features.

Several BIDs are using FOCUS on the DCRT computers for monitoring and analyzing grants. DRG's agreement to refresh the file has created the opportunity to offer this capability to all of NIH. The committee is grateful to Jim Dybvad and Nick Suszynski of DRG for their support.

If you would like to ask any questions in advance of the demonstration, feel free to call any members of the FOCUS Steering Committee: Lee Vickers, NIGMS (chairman) 496-7303; Sheldon Fishman, OD, 496-5011; Carolyn McHale, NIAMS, 496-0799; Thomas Mitchell, NIGMS, 496-7927; or Ralph Van Wey, NHLBI, 496-7875. □

NHLBI Council Members Named

Four new members have been named to the National Heart, Lung, and Blood Advisory Council of NHLBI. They are:

- Dr. Eugene Braunwald, Hersey professor and chairman, department of medicine, Harvard Medical School.

- John T. Fitzpatrick, a senior partner in the law firm of Fitzpatrick and Bray in Fairfield, Conn.

- Dr. David C. Sabiston, Jr., James Buchanan Duke professor of surgery and chairman, department of surgery, Duke University Medical Center.

- Dr. Thomas F. Boat, professor and chairman, department of pediatrics, school of medicine, University of North Carolina.

The term of office for all four members runs through October 1991. □



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	
Managing Stress	5/9
The Federal Budget Process	6/1
Time Management	6/6
Speed Reading for Professionals	5/25
Improving Managerial Effectiveness	6/7
Practical Management Approaches	6/16
The Management Tactics Clinic	6/9

Office Skills 496-6211

Effective Listening & Memory Developing	5/19
Improving Managerial Skills for Secretaries	5/3
Telephone and Receptionist Techniques	5/16
Time and Stress Management for Support Staff	6/13

Office Automation 496-6211

Intro to Lotus 1-2-3 Macros	5/9
	8/3

Adult Education 496-6211

Training and Development Services 496-6211

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

The URC hours are:

Monday-Thursday	8:30-9:00 p.m.
Friday	8:30-4:30 p.m.
Saturday	9:00-3:00 p.m.

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Vale To Give Solowey Lecture

Dr. Wylie W. Vale has won the 1988 Mathilde Solowey lecture award in the neurosciences sponsored by the Foundation for Advanced Education in the Sciences, to be presented in Lipsett Auditorium on Wednesday, May 18, at 3 p.m.

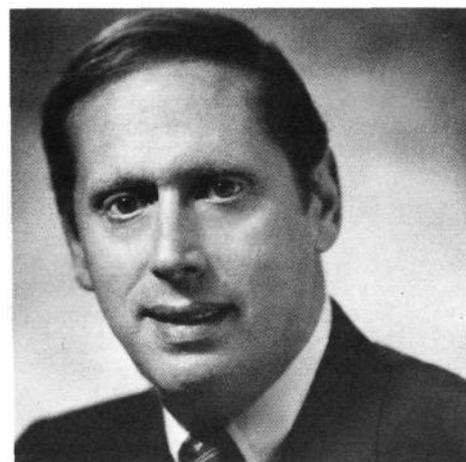
The title of his lecture will be "Neuroendocrine Regulation of Differentiated Functions and Proliferation of Pituitary Cells."

Vale is professor and head of the Clayton Foundation laboratories for peptide biology at the Salk Institute. His research on neuroendocrine systems has focused on the structures, regulation, physiological roles, and mechanisms of action of neuroendocrine peptides controlling the endocrine and central nervous systems.

Immediately following the lecture, a reception for Vale will be held in the foyer of Lipsett Auditorium. □



Dr. Louise Ramm has been appointed as a health scientist administrator in the biological models and materials development section, Animal Resources Program, Division of Research Resources. She holds a Ph.D. in microbiology from the University of Virginia and previously was a research associate at Johns Hopkins University and the University of Maryland School of Medicine.



Dr. William E. Paul, chief of NIAID's Laboratory of Immunology, is the 1988 winner of the 3M Life Sciences Award, which honors outstanding contributions to the field of modern immunology. He will receive this prestigious award on May 4 during a formal presentation by the Federation of American Societies for Experimental Biology at its annual meeting in Las Vegas. Following the ceremony, he will present a lecture entitled, "Lymphokine Regulation of Immunoglobulin Class Switching."

has a greatly expanded prefatory section with a number of new lists and explanatory material not previously available. The section wishes to compile a mailing list for annual distribution of this publication to NIH offices. First consideration will be given to those requests that can be set up as "office copies." Lower priority will be given to requests for personal copies. Further information about "Introduction to the CRISP System" or the *CRISP Thesaurus* may be obtained by calling 496-7543. □

CRISP System Announcements

Because of the high level of interest in the "Introduction to the CRISP System" one-day training program, a fourth spring 1988 training date has been added—June 16. Priority will be given to those applicants who could not be accepted for earlier sessions. Those who have not previously requested training may submit their request in writing to the research documentation section, Division of Research Grants, Westwood Bldg., Rm. 148.

The research documentation section also has a limited number of copies of the new FY88 edition of the *CRISP Thesaurus*. This edition



The National Institute of Allergy and Infectious Diseases hosted its 10th annual "Introduction to Biomedical Research Program," Phase I, at NIH. Fifty-five academically distinguished minority undergraduate, graduate, and medical students attended the 2½ day program. Dr. John I. Gallin, (bottom row center), director of the institute's Intramural Research Program, is shown above with the students. The group heard a series of lectures by NIAID/NIH staff, toured the Clinical Center and intramural laboratories, and talked to institute research scientists and other NIH officials. The program, an affirmative action initiative, is designed to encourage students majoring in the sciences to pursue careers in biomedical research at the NIAID/NIH. The program activities were coordinated by Gwendolyn Brooks, NIAID-EEO manager and Phase I program director, and by Dr. Katherine Cook Jaouni, special assistant to Gallin and director, NIAID summer program, Phase II. This year, 16 of the students will be invited back for the summer to work in NIAID's laboratories in Bethesda and in Hamilton, Montana.

Update on Women's Health

The NIH Women's Advisory Committee, a component of the Federal Women's Program in the Division of Equal Opportunity, is sponsoring a presentation on women's health issues on Tuesday, May 10, from 10 to 11:30 a.m. in Lipsett Auditorium, Bldg. 10.

The program is a follow-up to Dr. Antonia C. Novello's March presentation on women's health issues, sponsored by the committee in observance of Women's History Month. Novello, deputy director of NICHD, has entitled her presentation "Menopause, Estrogen Replacement Therapy, and Other Things I Forgot to Tell You."

An expert on health issues concerning women and children, Novello will present an update on information previously addressed as well as new findings related to women's health issues. There will be an opportunity for questions and answers.

Sign language interpretation will be provided. If other accommodations for persons with disabilities are needed, please call the Federal Women's Program Manager, Division of Equal Opportunity, 496-2112. □

NIDDK Confers District of Columbia Science Fair Awards

The "National Institute of Diabetes and Digestive and Kidney Diseases Special Award for Science" made its debut at the 42nd annual District of Columbia Science Fair. A panel of judges, made up of NIDDK scientists, presented first and second place awards to two high school students whose science projects showed exceptional creativity, scientific thought, thoroughness, skill and clarity.

Hiruth Y. Abraham, a 10th grade student at Cardozo High School, won first place for her project called "A cross cultural analysis of attitudes toward human organ donation and transplantation." She was awarded a plaque, a subscription to a scientific journal, and a summer apprenticeship in an NIDDK intramural laboratory.

Abraham is from Ethiopia and lived in Nigeria before coming to the United States. Her selection of a science project dealing with cultural attitudes was made easier because of her own cross-cultural experience. According to her biology teacher, Mattie Jefferson, "Hiruth is an excellent student who works hard to see all her projects through to the end." For her award-winning science project, she developed surveys about attitudes on human organ donations and transplantation that she distributed to Ethiopians, Hispanics, and black and white Americans. Rather than rely on people to mail their surveys back, Hiruth, with the help of fellow classmates, collected them from each person. While work-

Fauci Named Associate Director for AIDS Research

Dr. Anthony S. Fauci, director of the National Institute of Allergy and Infectious Diseases, has been named associate director of the NIH for AIDS research and director of the Office of AIDS Research of the NIH. He will continue in his position as director, NIAID.

In announcing the appointment, Dr. James B. Wyngaarden, NIH director, stated that the new position was established in order to strengthen the coordination of AIDS research and AIDS activities at NIH. The new NIH Office of AIDS Research will include a staff reporting directly to Fauci, who in turn will report directly to Wyngaarden.

Fauci has functioned as NIH AIDS coordinator since 1985. At that time, the NIH budget for AIDS was \$63,737,000 and AIDS activities at NIH were concentrated primarily in three institutes—NHLBI, NCI, and NIAID. Since then, extraordinary expansion of AIDS efforts has occurred involving all components of NIH and an estimated budget of \$467,806,000 for FY 1988.

"I am pleased to have Dr. Fauci continue



Dr. Anthony Fauci

his excellent work as coordinator of AIDS research," Wyngaarden said. "I anticipate that the establishment of a formal Office of AIDS Research with staff support will provide a cohesive framework for NIH AIDS activities." □

ing on her science project, Hiruth became so interested in the subject that she has already decided to elaborate on it for next year's science fair.

Hiruth's longstanding ambition, says Jefferson, has been to become a pharmacist and eventually own her own pharmaceutical company. Her mentor, Davene White of Howard University Hospital, described Hiruth as a real go-getter who is very cooperative and willing to learn. "I know she will be successful in any career she chooses because of her determination and drive," said White.

The second place award went to Deirdre Y. Watkins from H. D. Woodson High School



Deirdre Y. Watkins (l) and Hiruth Y. Abraham stand with J. Harrison Ager, NIDDK EEO program manager, after receiving their awards.

for her project entitled "Water analysis: A physical and chemical study." She also received a plaque and a subscription to a scientific journal.

Commenting on NIDDK's participation in the science fair, Dr. Pierre F. Renault, deputy director, said, "There is a critical shortage of young people interested in a career in science. We feel that the science fair is an important way to encourage the scientific interests of young people." NIDDK has a varied intramural science program that traverses many areas of basic science, including botany, zoology, molecular biology, microbiology, chemistry, biochemistry, physics, and mathematics.—Eileen Corrigan □

Cystic Fibrosis Symposium

The third annual Spring Cystic Fibrosis Symposium will be held on May 23 from 9 a.m. to 5 p.m. in the Lipsett Auditorium of the Clinical Center.

The meeting is sponsored by the NIDDK-Cystic Fibrosis Foundation Joint Program. The program will consist of presentations by several speakers on topics that include the genetic aspects, the biochemistry of secretion, the characterization of mucins in cystic fibrosis, and others. For further information, call Dr. Victor Jimenez, 496-3093 or 496-5948. □