Dr. Kon Helps Pioneer ESR Spectrometry at NIH

Dr. Hideo Kon’s laboratory in the basement of Bldg. 2 is not a typical biomedical NIH laboratory. According to the National Institute of Arthritis, Diabetes, and Digestive and Kidney Diseases research chemist, this laboratory is where 10 to 12 scientists whose backgrounds were mostly in physical science, formed in the 1950’s the “nucleus for the introduction of more physical and computer technology in biomedical science at NIH.”

When Dr. Kon joined NIH in 1963 in the Section on Molecular Biophysics in the Laboratory of Physical Biology, this was the only laboratory using nuclear magnetic resonance spectrometry and electron spin resonance spectrometry. Today, he estimates there are at least five NMR groups, four ESR groups and several laser spectroscopy laboratories at NIH.

Dr. Kon’s own area of interest is in electron spin resonance spectroscopy, and his experiments are more baseline in nature. (See DR. KON, Page 10)

Division Director Named For Management Survey, Review

Howard Hyatt, a former division director in the Department of Justice, was recently appointed director of the Division of Management Survey and Review.

A government employee for 23 years, he comes to NIH from the Law Enforcement Assistance Administration, where he was director of the Central Audit Operations Division in the Office of Audit and Investigation from 1975. He was responsible for directing nationwide audits of state and local governments, universities and colleges, and private research organizations.

From 1972–75, Mr. Hyatt was director of Contract and Institute Audit Activities, and from 1968–72, he was a supervisory officer, also with the Department of Justice.

He worked at the Department of Defense for 10 years before moving to the Justice (See MR. HYATT, Page 6)

1st Symposium Held on Tourette Syndrome; Dr. Samuel Johnson’s Case Discussed

By Ray Fleming

“You must not mind me, madam; I say strange things but I mean no harm.”

The year was 1778, and the man behind these words was a now-famous Englishman; a critic and author alternately considered a genius and an idiot by the people of his time. He was a frequent contributor to literary magazines, yet he talked to himself, grunted, and repeated incoherent words and phrases.

He published a dictionary, and started a club of well-known literary figures. But he rocked back and forth on his feet, rolled his head, and couldn’t approach a doorway without measuring his steps exactly.

Dr. Samuel Johnson, the “great prince” of literature, suffered from Tourette syndrome.

Were Dr. Johnson alive today, his illness would be more easily recognized for what it actually is: an organic disorder of the central nervous system. Although treatment of TS has improved considerably with the advent of drugs like haloperidol and clozapine, public awareness of the condition is still developing.

Thousands of Tourette patients continue to suffer physically and mentally from the strange behavior, sudden body movements, and involuntary sounds that characterize the disorder. The cause of the illness has yet to be discovered.

The movement and behavior patterns of Tourette sufferers.

(Continued on Page 9)

Cells Resistant to Lethal Radiation Doses Found in Some Cancer-Prone Family Members

Cells from some members of a cancer-prone family have been found resistant to the deadly effects of cancer-causing radiation in a study by scientists from the National Cancer Institute.

This surprising and paradoxical finding may be a clue to an inherited defect that keeps cells alive despite lethal doses of radiation. The resistant cells are left vulnerable to changes that become cancer.

Human cells’ sensitivity to radiation is recognized as a marker of increased cancer risk. However, a recent study of a cancer-prone family shows that cells’ resistance to being killed by radiation may also indicate increased risk.

“This is the first study that’s found radiosensitivity in a cancer-prone family’s normal tissue,” said Dr. William A. Blattner, head of Family Studies Section, NCI Environmental Epidemiology Branch. “In several cases, skin biopsy specimens were taken prior to discovering cancer in the subjects. Multiple samples from the same person collected over several years yielded the same abnormal results.

“This is a special kind of cancer family,” Dr. Blattner continued, “because of the diversity of tumors over six generations throughout distant branches of the family. This diversity makes us wonder whether radiosensitivity is the manifestation of some underlying defect fundamental to cell growth regulation.”

Drs. Blattner, Elisabeth A. McKeen, and Joseph F. Fraumeni, Jr., of NCI; Dr. Beatrice C. Lampkin, Children’s Hospital Medical Center, Cincinnati, Ohio; and Drs. N. Torben Bech-Hansen, Brenda M. Sell, and Malcolm C. Patterson, Atomic Energy of Canada Limited, published their study results in the June 20 issue of Lancet.

Skin cells from eight cancer-prone family (See CANCER PRONE, Page 4)
The NIH Record

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NIH Resumes Regular Hours Sept. 8

The National Library of Medicine will resume its regular fall schedule on Tuesday, Sept. 8: Monday-Friday, 8:30 a.m. to 9 p.m.; Saturday, 8:30 to 5; and closed Sunday. The library's summer hours (8:30 to 5) remain in effect through Friday, Sept. 5.

The NIH Record will be closed during Labor Day weekend.

Training Tips

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

Office Skills
Course Deadline
Basic Time and Attendance
10/14
9/28

Communication Skills

Effective Listening
10/7
9/23

Writing Workshop*
9/28
9/4

* Deadline to TAB extended.

To learn more about these and other courses in Office and Communication Skills, contact the Training Assistance Branch, DPM, 496-2146.

CPR Instructor Course Offered by OMS

The Occupational Medical Service is offering a six-part CPR instructor candidate course for persons who have a current basic life support card.

The course will meet on Mondays and Wednesdays from 1 to 4 p.m. on Oct. 19, 21, 26, 28 and Nov. 2 and 4.

For additional details, call the CPR Training Office, 496-4111.

Handicapped Awareness Week Activities To Be Hosted at Parklawn, NIH

NIH employees are being invited to attend Handicapped Awareness Week activities at the Parklawn Bldg. on Wednesday and Thursday, Sept. 23 and 24. A full range of speakers and events are planned to help nonhandicapped participants better understand the problems facing handicapped persons and to find out how others have overcome their particular problem to be successful both at and away from the workplace.

Author To Speak

The all-day Parklawn activities will begin on Wednesday, Sept. 23, at 9 a.m in Confs. Rms. C, D, E, and F. The keynote speaker will be Harold Krents, a blind attorney and author of Butterflies Are Free—the poignant story of his life while attending Harvard Law School. He will speak at 9:15 a.m. on Affirmative Action: A Human Experience.

Twenty exhibitors will have displays of aids and equipment used by handicapped persons to enhance their employment opportunities. Exhibits will be located in Confs. Rms. F and Rm. 3A77 on Wednesday. Among the items featured are: an audio calculator, sports wheelchair, artificial larynx, reading machines, and an audio telephone director.

At 5 p.m. following Wednesday's activities, a reception in celebration of the International Year of Disabled Persons 1981 will be held.

On Thursday from 10 a.m. until noon, a legal workshop is scheduled in Conf. Rm. C.

Advanced Notice Required

Food and Drug Administration organizers advise that a 2-week advance notice is required for special accommodations including parking, interpreters, brailled programs and mobility assistance. For further information contact Linda Snyder, 443-3310 or 443-1818 (TTY or voice). NIH employees needing transportation should call D. Kenney, 496-4755.

NIH is planning a 1-day program as part of the Handicapped Awareness Week activity on Friday, Sept. 25. Further details about this event will appear in the Sept. 15 issue of The NIH Record.

Judo Demonstration Scheduled; Beginners' Class Announced

The NIH Judo Club will demonstrate a variety of the sport's techniques in Masur Auditorium on Wednesday, Sept. 2, from noon until 1 p.m., open to the public.

In addition to this event, the club has announced its fall beginners' class. This series of 10 classes in basic judo will be held on Tuesdays from 6 to 7:30 p.m. beginning Sept. 15 and ending Nov. 17. Classes will meet in the old gymnasium of Stone Ridge School, Cedar Lane and Wisconsin Ave.

Dr. Malone To Teach

Dr. Thomas E. Malone, Acting NIH Director, will serve as chief Kodakan judo instructor, or sensei, for the club. Dianne Moore, holder of the first-degree black belt (shodan), will be co-structor.

Application forms can be obtained from the R&W Activities Desk, Bldg. 31, Rm. 1A-18, or from Dr. Malone's office, Bldg. 1, Rm. 132. The fee is $35. Students Will Be Notified

Space is limited. Interested persons should submit their forms early. Students accepted for the class will be notified.

The NIH Record

September 1, 1981
Improperly Stored Chemicals Cause Fire in Bldg. 4

Extensive damage caused by the Aug. 7 nighttime explosion of chemicals improperly stored in a refrigerator located in the fourth-floor corridor of Bldg. 4, has now been cleaned up. This incident has raised again the importance of laboratory safety. It also led to a candid memorandum written by a scientist after the fire and directed to his colleagues explaining how the accident occurred and what safety measures should have been observed.

A building engineer first became suspicious when he smelled a strong, unpleasant odor during his normal rounds. He immediately called Dr. Walter W. Stewart, working on the third floor, about the odor from the scientist’s refrigerator. Unknown to the engineer, in addition to several flammable chemicals, the refrigerator contained two 100-gram bottles of acrolein—a liquid that becomes volatile when subjected to heat.

The explosive force of the contents in the refrigerator located in the fourth-floor hallway of Bldg. 4 was so strong that the handle smashed through the wall across from it.

A building engineer first became suspicious when he smelled a strong, unpleasant odor during his normal rounds. He immediately called Dr. Walter W. Stewart, working on the third floor, about the odor from the scientist’s refrigerator. Unknown to the engineer, in addition to several flammable chemicals, the refrigerator contained two 100-gram bottles of acrolein—a liquid that becomes volatile when subjected to heat.

The evidence of the heat of the fire was awesome. The NIH Division of Safety wants to remind all NIH personnel to observe safety procedures. If a researcher believes that a laboratory has outdated or possible hazardous material, it can be disposed of by calling the Chemical Waste Disposal Unit, 496-4710.
CANCER PRONE
(Continued from Page 1)

members and five controls were grown in cultures and later examined for gamma-ray resistance. Five of six participants from three generations of the cancer-prone bloodline showed significantly greater resistance to radiation (about 490 rads were required to kill 90 percent of the cells in the culture, whereas normally only about 400 rads are needed). Of those five with the high resistance to radiation, four had various cancers, including bone, blood, brain, and soft tissue.

The basic cellular defect may be related to DNA repair. “We speculate that something biochemical in the cells allows them to survive what ordinarily would be lethal doses,” Dr. Blattner said. “In this family’s cells, hyperactive enzymes may be repairing the damage imperfectly, allowing some flaw that permits the cells to become cancerous.”

The family was selected for gamma-irradiation survival studies because two individuals developed cancers suspected of being caused by radiation. Cultures from these two showed radioresistance, as did the fibroblasts of two others in the family who developed cancers during the course of the study. The fifth family member with radioresistance is still clinically normal.

One family member worked in a plant manufacturing radioactive heavy water for 5 years and another was therapeutically exposed. Both now have cancer.

“Our findings offer an important alternative to radiosensitivity as a cancer risk marker. I say ‘alternative’ because most research in this area is focused on studying radiosensitivity,” Dr. Blattner said.

“This seems to be an identifiable pre-cancerous susceptibility factor—something within the individual makes him or her more likely to develop cancer,” he continued.

“When the defect is better understood, then there will be more reliable and easier ways to spot it. Although a cancer screening test may not be around the corner, a basic insight into cancer susceptibility appears to be nearby.”

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Visiting Scientist Program Participants
Sponsored by Fogarty International Center
7/1—Dr. Jerzy Kulski, Australia, Section on Intermediary Metabolism. Sponsor: Dr. Yale Topper, NIADDK, Bg. 10, Rm. 9B18.
7/20—Dr. Ramaswamy Narayanam, India, Laboratory of Viral Carcinogenesis. Sponsor: Dr. Leo A. Phillips, NCI, Bg. 560, Rm. 12-27, Frederick Cancer Research Center.
7/20—Dr. Gauri Tadvalkar, India, Membrane Biology Section. Sponsor: Dr. Pedro Pinto da Silva, NCI, Bg. 10, Rm. 5B47.
7/20—Dr. Katsuyuki Tanizawa, Japan, Laboratory of Biochemical Pharmacology. Sponsor: Dr. Ethid Miles, NIADDK, Bg. 4, Rm. 109.
7/21—Dr. Osvaldo Giorgi, Argentina, Laboratory of Preclinical Pharmacology. Sponsor: Dr. Erminio Costa, NIMH, William A. White Bg., St. Elizabeth’s Hospital.
7/22—Dr. Tatsuhiko Kanmera, Japan, Laboratory of Chemical Biology. Sponsor: Dr. Irwin Chaiken, NIADDK, Bg. 10, Rm. 9N313.
7/22—Dr. Lech Weng Wu, China, Laboratory of Vision Research. Sponsor: Dr. Francisco de Mederoso, NCI, Bg. 9, Rm. 1E108.
7/26—Dr. Sertu Lu, China, Laboratory of Molecular Biology. Sponsor: Dr. Max Gottesman, NCI, Bg. 37, Rm. 4B03.
7/28—Dr. Eiko Nakagawa, Japan, Laboratory of Molecular Biology. Sponsor: Dr. H. Todd Miles, NIADDK, Bg. 2, Rm. 201.
7/29—Dr. Carl Laskin, Canada, Arthritis and Rheumatism Branch. Sponsor: Dr. John Deck, NIADDK, Bg. 10, Rm. 8D17.
7/30—Dr. Helmut Jacobsen, Germany, Laboratory of Experimental Pathology. Sponsor: Dr. Robert Friedman, NIADDK, Bg. 4, Rm. 310.
7/30—Dr. Marie-Claude Kilhoffer, France, Clinical Endocrinology Branch. Sponsor: Dr. Jacob Robbins, NIADDK, Bg. 10, Rm. 8N315.
8/1—Dr. Hans-Urs Affolter, Switzerland, Developmental Biochemistry Section. Sponsor: Dr. I. Hua David Ta-Chih, China, Laboratory of Immunodiagnostics. Sponsor: Dr. James Braatz, NCI, Bg. 10, Rm. 8B05.

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NINCDS Pamphlet Answers Questions About Senility
A new National Institute of Neurological and Communicative Disorders and Stroke publication, The Dementias: Hope Through Research, explores myths and facts surrounding brain diseases that cause progressive mental deterioration.

The 32-page pamphlet is the latest in a series of publications designed to inform the public about neurological disorders. Contrary to popular belief, senility is not a natural accompaniment of aging. Only 5 percent of the U.S. population over 65 is severely demented, with another 10 percent mildly impaired. However, since more Americans are living longer, the number of demented individuals will increase.

The Dementias discusses current research on these disorders and describes causes, symptoms, and treatment. The pamphlet also explores the differences between the “true dementias” caused by such disorders as blood vessel disease in the brain, Parkinson’s disease, and Huntington’s disease; and the “pseudodementias” caused by depression, drugs, and chemical imbalances.

Single copies can be obtained from the Office of Scientific and Health Reports, NINCDS, Bldg. 31, Rm. 8A-06, Bethesda, Md. 20205; telephone (301) 496-5751.

OMS Offers Program
On Stress and Coping
Rachelle Selzer, chief mental health counselor, Employee Assistance Program, is presenting a repeat lecture/discussion on Stress and Coping, Monday, Sept. 28, at noon, in Bldg. 31, Rm. B2C-07.
Property Utilization Programs Offer Reconditioned Furniture; Recycling for Both Paper, Film

Joan Carter, PUB, holds the recording part of a dictaphone machine. Although sometimes outdated, assorted office equipment is available, which could serve as secondary units.

The property utilization program has saved the government millions of dollars over the past few years through recycling of unused equipment. Every employee is encouraged to release idle equipment and let others make good use of it.

All of NIH’s excess property is received, warehoused and reissued by the Property Utilization Section, Personal Property Branch. Scientific, technical and administrative equipment including furniture and office machines no longer needed for various activities is usually reissued by this section to other NIH’ers.

If a home cannot be found for the property on campus, it is then made available through the General Services Administration to all other Federal agencies, state agencies, or sent to the GSA sales center.

“NIH scientists are rather fortunate to be able to have a budget that is not so restricted,” said William Veezey, section chief. “Equipment turned in and considered obsolete for NIH research purposes is considered to be prized possessions by other agencies on more restricted budgets,” he said. “We probably handle about $6 million worth of property each year.”

Warehouse Open Daily

Excess serviceable property is stored in the property utilization warehouse. The display area is open to all NIH personnel each working day from 8:30 a.m. to 4:30 p.m., Rm. 2E-37, Bldg. 13. Items may be inspected, selected and tagged, and held for approximately 10 days pending receipt of the Report of Property Transfer (NIH Form 649).

Items that are not immediately available through excess may be requested on a “want list.” The want list is kept on file until the order is filled or the requestor has it removed.

When planning to acquire property, ordering offices should first determine whether needs can be met by the use of excess property. NIH excess equipment is available for official use without charge. The Utilization Section will assist requisitioners in obtaining such property and furnishing information about it.

The section also arranges for reconditioning wood and metal furniture. Reconditioning is an economical means of maintaining furniture to meet many recurring requirements. Approximately 75 percent of the cost of a new item can be saved by using an equivalent piece of reconditioned furniture. Upholstered furniture can also be restored.

“The reconditioning of furniture was practically unheard of at NIH before the Office of Management and Budget placed a moratorium on the purchase of new furniture a couple of years ago. Then our business soared,” said George Gilkenson, chief, Personal Property Branch.

“Even though the moratorium has recently been lifted, budgets are tight, so I feel the reconditioned business will continue to be brisk because people realize the savings to be had and the quality of workmanship—and the quality of workmanship is very good,” he added.

In keeping with energy conservation, the section also receives recycleable paper and all kinds of used film. These valuable materials should not be thrown out; the Utilization Section will arrange for pick up.

“While it is encouraging that more and more NIH areas are sending us their recyclable paper and scrap film, I know that there’s a lot more out there that is being disposed of as trash,” said Mr. Gilkenson. “Most people don’t realize that used film is valuable because of the silver content that can be extracted. Regardless of the quantity involved, we will be more than happy to send someone over to pick it up,” he continued.

The Property Branch sends out a monthly “Unrequired Property Bulletin” to many NIH areas. It lists all available usable property which may be inspected for resale to NIH users. To be placed on the bulletin’s mailing list, call Sue Bell, Printing and Reproduction Branch, 496-2378.

For more information about the Property Utilization Section, call 496-4247.

FAES Classes to Start Sept. 21; Social and Academic Center Reopens

The Foundation for Advanced Education in the Sciences Social and Academic Center, 9101 Old Georgetown Rd., has reopened after undergoing renovation. NIH personnel may reserve it for seminars and laboratory or office parties. “Open afternoons” are held there on Thursdays and Fridays from 5 to 7:30 p.m. This “happy hour” is free to FAES members and $1 for guests.

Registration Starts Sept. 10

The FAES also reminds NIH employees that walk-in registration for the fall semester is Sept. 10, and classes start Sept. 21. These graduate and undergraduate evening courses are open to all qualified persons, both government and nongovernment.

The current FAES 1981-82 catalog lists classes ranging from biochemistry to statistics. The last page of the booklet is the registration form. Tuition is $32 per semester hour.

For further information on courses or the Social and Academic Center, contact the FAES at Bldg. 10, Rm. B1-L-101; telephone, 496-5272.
Mr. Hyatt

(Continued from Page 1)

Department. His positions there ranged from working on the Navy audit to the Defense Contract Audit Agency.

Mr. Hyatt, a native of Baltimore, received a degree in accounting from the University of Baltimore in 1957. He is also a certified internal auditor.

As director of DMSR, he will oversee the design and conduct of NIH administrative activities such as management control systems, contracts and grants administration, travel procedures, personnel administration, office service functions, procurement administration, supplies utilization, and management and fiscal controls and practices.

In his spare time, Mr. Hyatt is involved in weight training and he finds playing organ a good way to relax after a long work day.

Special Assistant Named For NIEHS' International Program

Dr. Terri Damstra has been named special assistant to the director for international programs at the National Institute of Environmental Health Sciences. In her new post, she will coordinate the NIEHS' cooperative agreements with other nations in the environmental health sciences area.

Dr. Damstra comes to the position from the Institute's Office of Health Hazard Assessment where she was involved in analyzing, reviewing, and evaluating scientific studies dealing with the potential health effects of environmental agents.

Prior to joining NIEHS in March 1975, she was an instructor in the division of chemical neurobiology at the University of North Carolina School of Medicine at Chapel Hill. She continues to lecture there as an adjunct assistant professor in biochemistry.

Dr. Damstra earned her Ph.D. in biology at the University of Chicago in 1969. She has authored and coauthored more than 20 scientific papers, and currently serves on the editorial boards of the scientific publications Neurotoxicology and Neurobehavioral Toxicology.

Her professional memberships include the American Association for the Advancement of Science, the Society of Neuroscience, the Neurochemistry Society and the Association for Women in Science.

A biochemist, Dr. Damstra has served on a number of interagency committees dealing with the exchange of toxicological information. She was also a consultant to the International Joint Commissions Committee on the Assessment of Human Health Effects of Great Lakes Water Quality.

Literacy Council of Mont. Co. Needs Volunteer Tutors

The Literacy Council of Montgomery County begins its fall-winter series of workshops Sept. 14 to train volunteer tutors.

The free, 15-hour workshops acquaint volunteers with methods and materials used either to teach basic reading and writing to the English-speaking adult, or conversational English and reading and writing to the foreign-born adult.

For more information, call 762-6800.
Student speakers Cheryl Walker, Aaron Hill, and Matthew Kane shared their work experiences as summer employees.

Entertainment included a fashion show and musical selections performed by Sean Hayden, Jeanette Barzey and Anne Laurie Warran.

Dr. William F. Raub, NIH Associate Director for Extramural Research and Training; Dr. Jay Shapiro, Clinical Center associate director; and Otis Ducker, director of the Division of Administrative Services, OD, spoke on Career Opportunities at NIH.

Gloria T. Riley, employee relations specialist in the Labor Management Branch, Division of Personnel Management, retired on Aug. 21 after 42 years of Federal service, 19 years of which were at NIH.

Mrs. Riley spent most of her career in personnel work with medical components of the Federal Government. From 1940 to 1962 she served in the Office of the Surgeon General, Department of the Army.

While there, she advanced through various technical and professional personnel positions to become a senior employee management relations specialist.

She joined NIH in 1962 and became the staff expert on grievances, adverse actions and appeals, and later served as the NIH labor relations officer and acting chief of the Labor Management Branch.

When Mrs. Riley left the Department of the Army, the Surgeon General said her "great ability, genial and willing spirit and friendly personality had contributed much to the success of the civilian personnel program and influenced the lives and careers of a great many people."

At NIH she has become well-known and highly respected for her practical approach to solving difficult problems, her ability to relate to a wide range of employees and management officials, and her total commitment to making NIH a better place to work. She received the NIH Director’s Award in 1980.

Mrs. Riley’s retirement plans include visiting family in Massachusetts and Arizona, and serving as a grievance examiner for the Department.

Curses . . . Foiled Again!

A variety-type melodrama evening will be presented by the R&W/NIH Theatre Group in November.

Auditions will be held in the Masur Auditorium on Sept. 2, 3, and 4 at 7 p.m. Anyone interested in performing or helping backstage should call Sally Richardson, 496-7716.
During this fiscal year, the Division of Research Resources General Clinical Research Centers Program has been celebrating its 20th anniversary with many activities across the country. Most of the 12 charter GCRC’s have been involved in a variety of Special events ranging from endowed scientific lectures to reunions of former patients to public open houses. These events have generated wide media attention to the GCRC program and to research efforts at individual centers. In addition, the GCRC’s were featured in a presentation by then-NIH Director Dr. Donald S. Fredrickson at this year’s clinical research meetings in San Francisco.

The original 12 clinical research centers which participated in the 20th anniversary activities are located at the following academic medical centers: University of Washington; Johns Hopkins University; Yale University; Washington University, St. Louis; New York University; University of Pennsylvania; Duke University; Emory University; University of Rochester; Ohio State University; Vanderbilt University; and the University of Southern California.

According to Dr. William R. DeCesare, GCRC program director, the program was initiated in 1959 when the Senate Appropriations Committee recommended to NIH that clinical research centers be established to intensify the attack on human diseases. After calling for and reviewing applications, making original awards, and setting up the 12 centers, the first patients were admitted during fiscal year 1961. The following year, NIH placed the GCRC program in the Division of Research Resources.

“The primary purpose of the General Clinical Research Centers Program has been to provide a nationwide system of research facilities, with research staff, in which diseases can be studied in humans,” Dr. DeCesare explained. “Today, the clinical research centers provide roughly 80 percent of the NIH support for extramural research patient care. Currently, DRR supports 75 centers with about 600 beds and more than 3,000 projects, most of which are supported by NIH grants or contracts. In addition, the centers account for approximately 75,000 annual outpatient visits.”

In effect, each GCRC is a miniature hospital within a major medical center hospital. Specialized equipment and expert personnel provide a multidisciplinary controlled research environment. While there is no typical GCRC, an average center can be described. It has eight beds, a nursing station, a core laboratory, a metabolic kitchen, treatment rooms, waiting rooms, patient lounge, nurses’ station, conference room, and outpatient offices. The staff, on the average, consists of 1 or more medical directors, 12 to 13 nurses, 3 to 4 dietary support personnel, and 2 to 3 laboratory technicians.

Significant medical advances resulting from early research endeavors on GCRC’s include:
- Many improvements in hemodialysis treatment, and in renal transplants.
- A new diagnostic test for early detection of thyroid cancer.

(Continued on page 9)
FIRST TOURETTE SYNDROME SYMPOSIUM HELD

(Continued from Page 1)

TS patients were discussed at great length recently in New York City at the First International Symposium on Tourette Syndrome and Related Disorders. A cosponsor of the symposium was the National Institute of Neurological and Communicative Disorders and Stroke.

Symposium speakers emphasized that unlike the simple, well-defined body movements occurring in disorders like Parkinson's and Huntington's diseases, TS movements are often complex ones requiring coordination.

Spasmodic "tics" are common in the head and neck, and occasional in the arms, hands, and legs. Compulsive behavior, such as lip smacking, grimacing, sniffing, saluting, and jumping also occurs frequently.

Motor tics, which occur more often in males than in females, TS patients, were discussed in detail. TS movements are involved in a sequence according to a pattern; the tics also happen suddenly and at irregular intervals, rather than continuously.

Such tics vary in frequency (temporary remissions are common), in severity, and in location in the body. Unlike the spasms produced by other movement disorders, TS tics do not generally result from sensory stimulation.

Many patients, it was reported, feel an irresistible urge to perform an abnormal movement, and are relieved when the tic is completed. (Some TS sufferers are temporarily able to suppress tics, but the urge must be satisfied within a short period of time.)

Many feel inhibited by their tics: one young patient, for example, balked at showering because he felt that once he began the process, he would not stop. The reason for these seemingly contradictory symptoms according to some scientists, may lie in the dual inhibiting/activating nature of the brain's chemical messenger system.

"We suspect that the movement and behavior problems in Tourette syndrome are caused by a chemical abnormality in the brain's neurotransmitter system," explained Dr. Thomas Chase, NINCDS scientific director and cochairman of the symposium. "The resulting symptoms vary considerably from patient to patient."

One symposium presenter chose the case of Dr. Johnson to illustrate the variety of TS symptoms. The English lexicographer repeatedly tilted his head toward his right shoulder while talking or sitting, and would compulsively touch his toes or heels together as if to form a triangle.

One of his best-known compulsions was deliberately touching every post he passed as he walked along the street. He also habitually kept his left arm fixed across his chest, with his hand resting under his chin.

Dr. Johnson suffered another symptom characteristic of TS: compulsive uttering of barks, grunts, and other noises, sounds, and words. Such utterances plague TS patients to this day, and in the most distressing form manifest as coprolalia: the irresistible urge to utter obscenities.

Although Dr. Johnson himself did not curse compulsively, 50 percent of TS sufferers do. Some scientists claim that this symptom has psychological origins, since it seems unlikely that a physical disturbance would encourage the use of obscene words over thousands of socially acceptable ones. Other investigators claim an organic basis for coprolalia.

Using tables that reflected how often letters and letter combinations appeared in normal language, scientists programmed computers to generate strings of random letters, each letter weighed with its probability of occurrence in normal speech.

Some of the first recognizable letter combinations produced by the computers were common obscurities. Religious profanities were not produced in computer-generated language—just as they are not found in coprolalia.

Cursing Discussed

Since a number of TS patients claim that the sound of words is the most important factor in satisfying their urge to vocalize, the investigator argued that TS patients who "curse" do so because obscenities are among the first, simplest, and most satisfying words produced by a short-circuited nervous system. Religious profanities, he suggested, are absent because they may be more difficult to produce and less satisfying to the patient.

The basis of coprolalia is still open to question. Through the research supported by NINCDS, the Tourette Syndrome Association, and other agencies, more pieces of the Tourette puzzle may fall into place.

Animal model and clinical studies of TS and TS-like disorders continue to provide information, and promising drugs are being tested for better control over symptoms. Recognition and publicity have resulted in increased public awareness about the disorder and its distressing characteristics.

"Tourette syndrome has been plagued by too much clinical misunderstanding and too little research attention," concluded Dr. Chase. "We hope we can now better define what the syndrome really is and apply emerging techniques to the solution of the problem."

Stress is a normal part of living; everyone faces it to some degree. The causes of stress can be good or bad, desirable or undesirable (such as a promotion on the job or the loss of a spouse). Properly handled, stress need not be a problem. But unhealthy responses to stress—such as driving too fast or erratically, drinking too much, or prolonged anger or grief—can cause a variety of physical and mental problems. Even on a very busy day, find a few minutes to slow down and relax. Talking over a problem with someone you trust can often help you find a satisfactory solution. Learn to distinguish between things that are "worth fighting about" and things that are less important.—Health Styles—PHS 81-50155

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Sixth Anniversary Run Features Three Races, Membership Drive

The NIH Health's Angels will celebrate their sixth anniversary with a series of running events for adults and children to be held at the Kengar Recreation Center, Kensington, Md., on Sunday, Sept. 20.

These events will also mark the start of a vigorous recruitment drive to attract joggers from all walks of life.

The center, located one-quarter of a mile north of Knowles Avenue on Beach Drive, can be reached from NIH by following the bike path through Rock Creek Park.

The first competition at 9 a.m. will be a 1-mile race for children 10 and under. Prizes will be awarded to all runners. At 9:15 a.m., a 2-mile Run for Your Life event will begin for adults.

A half-hour later, a 10-mile race will get under way with awards and gift certificates given to the top male and female runners, and to the top NIH finishers. There will also be a special "unbody" award for the fastest time turned in for a "body" that has a 2.5 or greater weight (lbs)/height (inches) ratio.

Organizers state a 50-cent entry fee will be charged for each event. Parking is limited.

Membership Packages Available

Health's Angels membership packages can be obtained through the R&W Association's Activities Desk, Bldg. 31, Rm. 1A-18. Included is a useful joggers booklet entitled Everything You Wanted To Know About Running, Jogging, and Walking at NIH, but Were Afraid To Ask.

For further information and directions to the recreation center, call Al Lewis, 443-1780.

FAES Offers New Course

Medicine 615—a new course specifically created for academic physicians whose formal training in internal medicine took place some years ago—is being offered by the Foundation for Advanced Education in the Sciences. The course is designed to update physicians whose direct patient care responsibilities have been limited over the last several years.

Primarily intended for NIH staffers in administration or research or whose clinical pursuits have been narrow, Medicine 615 will cover case studies which present problems in management as well as new diagnostic and therapeutic tools in internal medicine. The contents complement material presented in Medicine 610 (an internal medicine lecture course).

Enrollment is Restricted

Enrollment will be limited and preference will be given to permanent staff members at NIH. Physicians who have had formal clinical training in the last decade or less will probably find the material unsuitable for their needs.

Course instructors are Drs. James Phang and Jesse Roth. For further information, call Dr. Phang, 496-3097.

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September 1, 1981

Oh, Those Middle Years!

There is much information available concerning the trauma of the teen years and the problems of senior citizens. But, according to the Occupational Medical Service, little is said about the middle adult years.

The adult years is the topic of the film, Everybody Rides the Carousel: The Middle Years, to be presented this month.

The film will be shown at 11:30 a.m. and noon at the following locations:

- Monday, Sept. 14, Federal Bldg., Rm. B119
- Tuesday, Sept. 15, Westwood Bldg., Conf. Rm. D
- Thursday, Sept. 17, Bldg. 10, Masur Auditorium
- Friday, Sept. 18, Bldg. 1, Wilson Hall

Dr. Kon

Continued from page 1

Dr. Kon, one of the NIH pioneers in spec­ trometry, sits at the console of an electron spin resonance spectrometer in his lab where he studies the spectra of red blood cell samples.

He said, "The emphasis of this lab is unique in the history of NIH. Its emphasis is on fundamentals and we're very proud of this."

Since 1979 he has been endeavoring to develop improved methodology, using electron spin resonance for the study of the deformability of red blood cells. Deformability is the ability of the cells to deform so that they can pass through tiny capillaries. If the deformability is impaired, clotting, stroke, and loss of the sense of touch can result. Diabetics lose red cell deformability. Also, people who operate chain saws and jack hammers as an occupation tend to develop chronic arterial occlusive diseases in their hands, according to Dr. Kon.

"From 1963 to 1979, he worked on a basic study of paramagnetic ions. One part of this research was an investigation of what happens to hemoglobin in red blood cells when its structure is tampered with. As Dr. Kon explained, in order to use electron spin resonance in this study, the hemoglobin needed an unpaired electron. When electrons are in pairs and form bonds, they lose their spin. But when this bond is broken, a magnetic moment due to spin results, thus letting the substance interact with a magnetic field.

In the case of hemoglobin, it binds with and releases oxygen. Since these forms either do not contain an unpaired electron, or contain even numbers of them, they can't be studied with ESR. Therefore, Dr. Kon substituted nitric oxide for the oxygen. Thus, the nitric oxide hemoglobin has an unpaired electron, and can be studied as a model of ordinary hemoglobin.

Part of this experiment was to determine, for example, exactly what would happen if the water was removed from the protein of nitric oxide hemoglobin.

Dr. Kon first became involved in spectroscopy when he studied at Stanford as a research associate in 1956. For the next 2 years he worked with NMR spectroscopy at California Institute of Technology. Even though he had already received his Ph.D. in theoretical chemistry at Tohoku University in Japan, his stint in California was his first chance to perform experiments in magnetic resonance spectroscopy.

In 1959 he returned to his native Japan for 3 years to work as a researcher for Toshiba, a private company. In 1963, he came back to the U.S. to join NIH.

Dr. Kon has authored more than 70 scientific publications, and belongs to the New York Academy of Science, the Biophysical Society and Chemical Society of Japan, and Sigma Xi.

He enjoys growing flowers and vegetables in his spare time, and is a member of the Toastmasters Club at NIH. He learned English in Japan he says, but joined Toastmasters because it was difficult for him to give speeches in English. He eventually became club president.

He admits that there is increasing pressure to do purely biomedical research. He said, "Now, scientists with a physical science background are working on more biomedical projects, but the methodology is still basically physics or spectrometry-oriented."

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NIH Club Needs Hike Leaders

Anyone interested in leading hikes and walks is invited to the NIH Walking/Hiking Club meeting to prepare a fall calendar.

The meeting is Sept. 16 at noon in Bldg. 31, Rm. 2A-S2. For more information, contact Paul Luckenbaugh, 942-6398.
NIH Clean-up Campaign To Start With Bldg. 9

In some NIH buildings one can see trash in the halls, debris not properly disposed of, unused and forgotten chemicals located on back shelves, and cluttered rooms. To combat this situation, a new clean-up project for the entire NIH will be implemented in September.

The project is coordinated by Daniel Kenney, assistant office manager of the Division of Administrative Services, General Services Management. As project director he seeks to involve everyone in making work environments cleaner and safer.

According to Mr. Kenney, the plan is to work on one building at a time. Special emphasis will be placed on cleaning out the labs. Bldg. 9 was chosen as a starting point since it is relatively small and contains laboratories.

Individuals will be responsible for cleaning up their own areas. However, people from grounds maintenance, safety, housekeeping, shops, and other support groups, will be on hand to help.

In the first step of the campaign, the project director will meet with the administrative officers representing the occupants of the building to be cleaned. The AO’s will then set up an “occupants coordinating group” to distribute brochures, encourage their colleagues to participate, and become actively involved during the clean-up.

One week, Sept. 8-11, is allotted for the clean-up of Bldg. 9. First, all laboratory investigators are to dispose of all old or unnecessary chemicals. Second, surplus or empty gas cylinders will be disposed of. Third, burnable and nonburnable trash will be removed. Next, unneeded equipment and furniture will be removed and surplused.

Following the clean-up, a housekeeping crew will come through to wash the entire building. Finally, each person is to check for safety defects and report them.

Mr. Kenney, anticipating cooperation from all NIH employees, sees this campaign as an ongoing project. He feels that once a building is cleaned, each individual will become “trash-and-clutter” conscious and continue to keep it clean and safe.

Let’s help keep NIH clean. It’s everybody’s job.

A fisheye lens captures a unique perspective on the recently completed structural work at the new Metro Medical Center station that will serve NIH when it opens in the fall of 1983. This month a 15-month $10 million interior construction project will begin, and the station as it appears will never be seen like this again. Photo left—shows the station’s main entrance and platform lobby. Photo right—is illuminated only by emergency lighting, and adds a surrealistic image to an engineering feat. Photos by Lewis Bass.

Health of Hispanic Elderly To Be Discussed During Heritage Week in September

Health research and service needs of the Hispanic elderly will be the subject of talks commemorating National Hispanic Heritage Week on Sept. 16 and 17.

Meetings will be held each day from 9 a.m. to 4 p.m. in conference rooms D, E, and F of the Parklawn Bldg. The meeting is being sponsored by the Spanish Heritage Public Health Service Workers. NIH, FDA, ADAMHA, HRA, and HSA are cosponsoring the program.

Dr. Edward N. Brandt, Jr., Assistant Secretary for Health, DHHS, will open the meetings. The keynote address will be delivered by Dr. Fernando Torres-Gill of the Ethel Percy Andrus Gerontology Center, University of Southern California.

Drs. Robert N. Butler, NIA Director; Jacob A. Brody, NIA associate director for epidemiology, demography, and biometry; Richard J. Havlik, chief of Clinical and Genetic Epidemiology, NHLBI; and John Young, chief, Demographic Analysis Section, NCI, will be among the speakers. Dr. Jorge Litvak will participate on behalf of the Pan American Health Organization.

Four workshops will be held. On Wednesday afternoon, Sept. 16, the topics will be Financing Health Care for the Hispanic Elderly, and the Health Care Needs of the Hispanic Elderly and Implications for Manpower/Education.

Workshops on Thursday, Sept. 17, will be Research Priorities and Alternatives: The Hispanic Elderly, and Special Health Services for the Hispanic Elderly.

For further information, call Henrietta Villaescusa, 443-3257.
MEDECINE FOR THE LAYMAN

Dr. Candace Pert, NIMH, To Discuss Opiate Receptors;
Dr. Kirschstein, NIGMS, To Speak on Human Genetics

The world of medicine can be complex and confusing. The Clinical Center, in a continuing effort to help explain the rapid changes going on in medical research, is sponsoring its fifth Medicine for the Layman series. This year, eight outstanding NIH scientists will speak on subjects as varied as Schizophrenia and Growth Disorders in Children.

The lectures begin on Sept. 15 at 8 p.m. in the Masur Auditorium. The series offers employees and the public a rare glimpse of some of the work that goes on in NIH laboratories and clinics.

Dr. Candace Pert of the National Institute of Mental Health will begin the series with a lecture on opiate receptors in the brain. She will discuss progress in neurochemistry with research emphasis on chemicals which occur naturally in the brain and which function in a manner similar to drugs derived from opium.

Knowledge of how these natural substances affect brain physiology promises to reveal much of the function of the brain and the chemistry of emotions.

On Sept. 22, Dr. Ruth Kirschstein, Director of the National Institute of General Medical Sciences, will present Understanding Human Genetics. She will discuss the significance of genetics in everyday life and identify and explain several hereditary diseases, such as Down syndrome, sickle cell anemia, and Tay-Sachs disease.

Dr. Kirschstein will review the new technologies associated with genetics. She will also discuss the progress that has been made in research on genetic diseases and the prevention and treatment of the diseases.

Special seating for the hearing impaired is available. For more information call the CC Office of Clinical Reports and Inquiries, 496-2563.

New Clearinghouse Provides Digestive Diseases Information

Some 20 million Americans are chronically ill due to digestive diseases, and more Americans are hospitalized because of these diseases than for any other group of disorders.

To provide more information about digestive diseases, their symptoms, diagnosis, treatment, prevention, and research, the National Institute of Arthritis, Diabetes, and Digestive and Kidney Diseases has established a National Digestive Diseases Education and Information Clearinghouse.

The clearinghouse, an information service, cooperates with other professional organizations, foundations, and voluntary health organizations, to help educate the public, patients, their families, physicians, and other health care providers.

For information about materials and activities, contact the National Digestive Diseases Education and Information Clearinghouse, 1555 Wilson Blvd., Suite 600, Rosslyn, Va., 22209; telephone 496-9707.

Where Is Your Money Going When You Die?

The Division of Personnel Management reminds NIH employees that there are several different options in designating a beneficiary.

For those who have Civil Service retirement, Unpaid Compensation of Deceased Civilian Employees, or the basic life insurance, option A-standard, or option B-additional of the Federal Employees Group Life Insurance, an automatic line of beneficiary is established.

The order in which the employee’s death benefit would be paid is:

1) Widow or widower.
2) Child or children in equal shares, with the share of any deceased child distributed among the descendants of that child.
3) Parents in equal shares or the entire amount to a surviving parent.
4) The appointed executor or administrator of employee’s estate.
5) Next of kin (who is entitled under the laws of domicile of the insured at date of death.)

An employee can name another beneficiary by checking the box for filing a designation of beneficiary form. This is not necessary if the employee is satisfied with the automatic line.

The beneficiary receives retirement lump-sum benefits such as unused annual leave, salary, unnegotiated checks, travel, etc. A deceased employee’s spouse or children still have a right to the monthly survivor’s annuity payments, however.

An employee can change or cancel his designation of beneficiary at any time without the knowledge or consent of the previously designated beneficiary.

If an employee transfers to another agency outside HHS, his designation of beneficiary is automatically cancelled for life insurance and unpaid compensation benefits. Unless the employees want to follow the automatic line of beneficiary, they refile a designation of beneficiary form with the new agency. However, designation of beneficiary for retirement lump-sum benefits, filed with the Office of Personnel Management, remains in force unless cancelled in writing by the employee.

According to a new policy, an employee can designate a person or institution as a trustee to receive retirement and life insurance benefits upon his/her death.

Information and appropriate forms may be obtained at B/1/D personnel offices.

CC Sleep Study Seeks Volunteers

Volunteers are needed for a study on the effect of seasons on sleep, temperature, and responsiveness to light. Participation would involve sleeping at the Clinical Center four nights at six different times throughout the year. No drugs will be involved. Volunteers will be compensated according to the NIH fee schedule.

For further information about the study, contact the Normal Volunteer Office, 496-4763, the Sleep Laboratory, 496-6884, or Dr. Norman Rosenthal, 496-5410.

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