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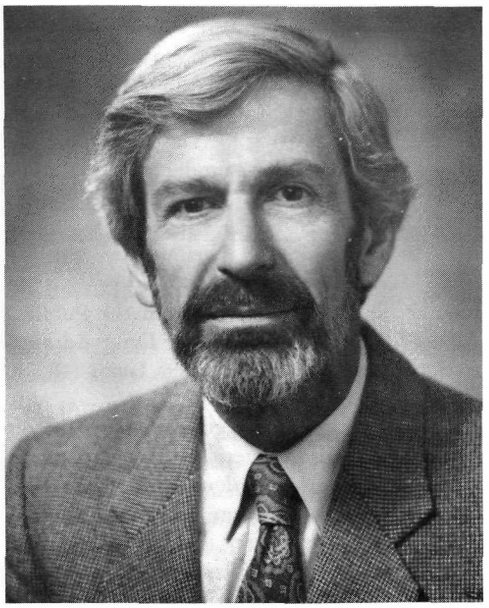
The NIH Record

Dr. Martin Gellert Will Deliver Mider Lecture

Dr. Martin F. Gellert, chief of the Enzymes Section Laboratory of Molecular Biology at NIADDK, will deliver the 1986 G. Burroughs Mider Lecture on "Why DNA Is Supercoiled."



Dr. Gellert

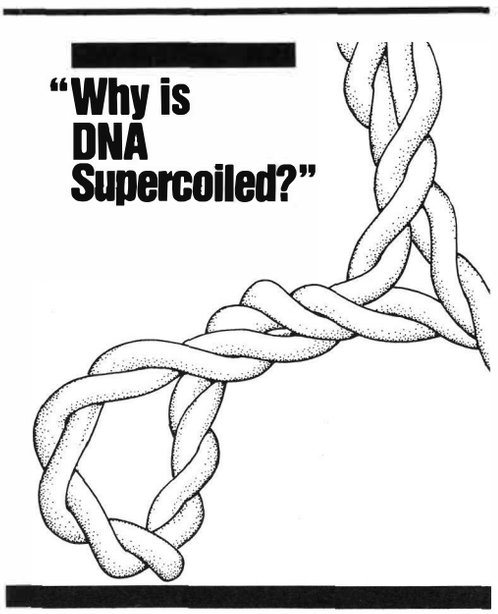
The lecture will be delivered at 8:15 p.m. on Mar. 5 at the Masur Auditorium in the Clinical Center.

The Mider Lectureship was established in 1963 by the Scientific Directors of NIH to honor Dr. Mider for his distinguished service to NIH, most recently as Director of Laboratories and Clinics.

The lectureship is awarded each year to a scientist who has contributed significantly to the biomedical research eminence of NIH by the Director of NIH on the advice of the Scientific Directors.

Dr. Gellert began his research career at NIH in 1959 in the Laboratory of Neurochemistry, National Institute of Mental Health. He joined NIADDK's Laboratory of Molecular Biology in 1962. His research at NIH has focused on the structure and function of DNA, the genetic material. He has made outstanding contributions toward the development of techniques that are important to the field of recombinant DNA technology.

Dr. Gellert is internationally noted for the discovery of the enzyme DNA ligase which he first described in 1967. DNA ligase is an enzyme that is capable of sealing together fragments of DNA or of repairing breaks in DNA molecules. It has become an essential tool for splicing genes together in genetic engineering experiments.



Dr. Gellert's recent research centers on his discovery of another DNA enzyme, DNA gyrase. Unlike the DNA ligase, which is found in all types of cells, DNA gyrase is currently identifiable only in bacteria. This enzyme is responsible for "supercoiling" DNA.

In its normal configuration bacterial DNA is a double helix joined in a circle. DNA gyrase breaks the circle, partly untwists the helix and reforms the circle as a mechanically stressed supercoiled.

This twisted form plays an important role in many essential reactions of DNA within the cell, such as replication and gene expression. Novel families of antibodies have been discovered that work by inhibiting DNA gyrase.

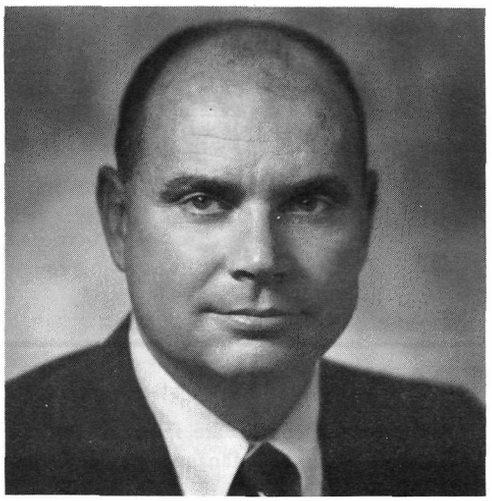
The Mider lecture is free and is open to the public and the scientific community. □

Dr. Duane Alexander Named NICHD Director

NIH Director Dr. James B. Wyngaarden has announced the appointment of Dr. Duane Alexander as Director of the National Institute of Child Health and Human Development.

As Director, Dr. Alexander will be administering a $313 million research program in the areas of maternal and child health and the population sciences. The NICHD sponsors the world's largest population and reproduction research program as well as a broad range of research focused on health and physical and behavioral development from conception through infancy, childhood and into adulthood. Biomedical, social, and epidemiological research is supported through grants and contracts or conducted in the Institute's own laboratories. This research ranges from very basic investigations to clinical studies.

Prior to his appointment as Director, Dr. Alexander, a pediatrician, had been the NICHD deputy director for 3 years and an assistant to the director since 1978. He had been Acting Director since the departure of the late Dr. Mortimer B. Lipsett who left NICHD in January of 1985 to head the National Institute of Arthritis, Diabetes, and Digestive and Kidney Diseases.



Dr. Alexander

With the exception of several special assignments, Dr. Alexander has been with NICHD since 1968, following his residency in the department of pediatrics at the Johns Hopkins Hospital. He came to NICHD as a clinical associate in the Children's Diagnostic and Study Branch.

Following his assignment in that branch, he returned to Hopkins as a fellow in pediatrics (developmental disabilities) at the John F. Kennedy Institute for Habilitation of the Mentally and Physically Handicapped Child.

Dr. Alexander returned to NICHD in 1971 as assistant to the scientific director. In that capacity, he directed the NICHD National Amniocentesis Study that established the safety and accuracy of amniocentesis for prenatal diagnosis. That test is now widely used to detect numerous genetic defects and inborn errors of metabolism.

From 1974 to 1978, he served as medical officer in the Office of the Assistant Secretary for Health in what is now the Department of Health and Human Services. He also was the physician on the staff of the National Commis-

(See APPOINTMENT, Page 10)

Female Volunteers Sought For NIMH Nutrition Study

Female volunteers between the ages of 30 and 50 are needed to participate as normal controls in a nutrition study at the National Institute of Mental Health. Volunteers must be free of medical illnesses and currently taking no medications. Volunteers will participate on 2 alternative days for 5 consecutive hours each day. Subjects will be paid $60 per study day.

For further information, contact Michael Genhart at (301) 496-2141, Monday through Friday from 9 to 5 p.m. □

TRAINING TIPS

The following courses are sponsored by the Division of Personnel Management, the NIH Training Center.

Executive, Management, and Supervisory 496-6371	*Course Starts*	*Deadline*
Successfull Middle Management at NIH	4/8	2/28
Effective Communications	4/22	3/14
White House Workshop	5/1	3/28
Making Time Productive	5/1	3/28
Working with Personnel Differences	5/30	3/7
Supervising in the Federal Wage System	5/5	3/28
Report Writing	5/14	4/4
Managing Behavior in the Work Environment	5/14	4/4
Effective Listening	6/2	4/25
Introduction to Supervision	6/23	5/16
Performance Appraisal Counseling	6/11	6/2
Strategic Planning for Productive Results	6/18	6/9

Office Skills Career Development Program 496-6371

NIH Management Intern Program 496-6371

Support Staff Training 496-6211		
Basic Time & Attendance	4/16	3/7
Management Development for Secretaries	3/24	2/24
Advanced IBM Displaywriter	3/17	2/21
Special Applications IBM	3/20	2/24
Displaywrite 3 for Secretaries	4/14	3/10
Human Relations	4/28	3/31
Leadership Skills for Secretaries	4/21	3/24
Professionalism and the Secretaries	4/14	3/17
Medical Terminology II	4/8	3/11

Training & Development Services Program 496-6211
SHARE TRAINING: For complete NIH Training Center information sign on to WYLBUR and enter SHARE TRAINING. For first-time users enter: x fr &agslugl.@@share(setup) on file37.

Adult Education Program ongoing 496-6211.

Campaign Set To Promote National Nutrition Month

On-campus activities scheduled for March, designated National Nutrition Month by the American Diatetic Association, will help NIH employees learn about nutrition. "Follow the Dietary Guidelines Down the Road to Better Health" is the theme of the NIH planned activities. They are being cosponsored by the Nutrition Coordinating Committee's Subcommittee on Nutrition Education, the GSI Cafeteria Service and the R&W Association.

R&W will be distributing a game desk-to-desk to test nutrition knowledge, entitled "Let's Play Healthy for National Nutrition Month." Employees are asked to answer the questions throughout the month and send their answers to the R&W Activities Desk in Bldg. 31, Rm. B1W30 or to the Gift Shops in Bldgs. 10, 38, or Westwood. Prizes will be awarded to the winners.

Once again, the GSI Cafeteria Service will feature "Nutrition Month Specials for the Day" along with calorie counts of various food items, as well as have a number of NIH nutrition pamphlets available for pickup at the cash register.

Many activities will focus on the new edition of the joint DHHS/USDA pamphlet, "Nutrition and Your Health, Dietary Guidelines for Americans." A special lecture on the background and science of the seven dietary guidelines is scheduled later in the month.

The seven guidelines explained in pamphlet form are as follows: "Eat a Variety of Foods," "Maintain Desirable Weight," "Avoid Too Much Fat, Saturated Fat and Cholesterol," "Eat Foods With Adequate Starch and Fiber," "Avoid Too Much Sugar," "Avoid Too Much Sodium," "If You Drink Alcoholic Beverages, Do So In Moderation." Individual copies of the dietary guideline pamphlets are available free by writing to: Dietary Guidelines, Consumer Information Center, Pueblo, CO 81009.

Copies are also available from county extension agents and the National Health Information Clearinghouse, P.O. Box 1133, Washington, DC 20013–1133; and from the Public Affairs Office of the Food and Drug Administration, HFE–88, 5600 Fishers Lane, Rockville, MD 20851.

Posters of the dietary guidelines will be displayed in all NIH cafeterias, and a special dietary guidelines exhibit, developed by the U.S. Department of Agriculture will be displayed in Bldg. 10's cafeteria later in March. The NIH–NCC "Nutrition Research Exhibit" will also be on display in the Visitor's Center of Bldg. 10. □

'Issues in Death and Dying' Offered at CC Amphitheater

The Clinical Center's Educational Services Office is sponsoring a series of minilectures and informal discussions on the care of terminally ill patients entitled "Issues in Death and Dying."

Each minilecture will be held from noon to 1 p.m. in the ACRF Amphitheater. Dates, topicse and speakers follow:e

Mar. 6: "Communicating With Dying Patients," Jacques Bolle, R.N., B.A., M.S., clinical specialist/psychiatric liaison, Cancer and Mental Health Nursing Service;

Apr. 3: "Grief and Bereavement," Dr. Daniel Cowell, assoc. director for medical education;

May 15: "Spirituality and Dying," Chaplain Leroy Kerney, chief, Spiritual Ministry Department;

June 26: "Bereavement Overload/Burnout," Jaques Bolle.

If you have any questions, call Rona Buchbinder, Clinical Center educational services officer, 496-1618. □

The NIH Record

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Women's Advisory Committee Elects New Officers

Members of 1985 and 1986 Women's Advisory Committee Executive Boards are: seated (l to r): Bonnie Shrader, 1985 and 1986 executive secretary; Peggy Garner, 1986 chairperson; Dr. Jeanne Ketley, 1986 vice-chairperson. Standing (l to r); Kathleen Maguire, 1986 organizing subcommittee chairperson; Cherie Nichols, 1986 education subcommittee chairperson; Valerie Trammell, 1986 alternate secretary and public relations subcommittee chairperson; Cynthia Gaines, 1985 chairperson; Barbara Iba, NIH Federal Women's Program manager; Carole Yee, 1985 vice-chairperson; and Gloria Richardson, 1985 education subcommittee chairperson. Absent from photograph: Diane Hazelbaker, 1985 organizing subcommittee chairperson and Elnora Jackson, 1985 public relations subcommittee chairperson.

The NIH Women's Advisory Committee recently held their annual election of officers. The new committee officers are: chairperson, Peggy Garner (NICHD); vice-chairperson, Dr. Jeanne Ketley (DRG); executive secretary, Bonnie Shrader (DS); and alternate secretary Valerie Tramell (NIADDK). The officers for 1985 were: chairperson, Cynthia Gaines (NLM); vice-chairperson, Carole Yee (NCI); and executive secretary, Bonnie Shrader (DS), who have been commended by the committee for their outstanding leadership, support, and contributions.

The voting membership of the committee consists of a representative and alternate representative from each BID and at-large representatives. The committee's executive board includes subcommittee chairpersons, as well as committee officers.

The Women's Advisory Committee is an officially chartered body established to advise the Federal Women's Program manager in the Division of Equal Opportunity. It provides a communication channel between NIH employees and management in order to promote equal opportunity for women at NIH. The committee's functions include reviewing and commenting on policies which impact on women, developing recommendations to eliminate barriers to equal employment opportunities for women at NIH, and support of sponsoring activities which assist women in the employment setting.

Activities which the committee has sponsored include workshops on career development and observances of Women's History Week. The committee periodically sponsors a career day when representatives from area colleges, professional organizations, and NIH personnel and training as well as employees who represent different job series, provide information to NIH employees. "Broadening Your Horizons" was the theme for the October 1985 Career Day. Experts provided information and answered questions on career development and advancement, educational opportunities, employee benefits, occupational series, and networking with professional organizations. The program was well attended and comments and suggestions received from attendees will be used in planning future activities.

At a 3-day workshop in 1985, the committee generated and refined mechanisms for identifying barriers to women in employment; conducted an intensive review and assessment of the purpose, role, and effectiveness of the committee as an advisory group to the NIH Federal Women's Program manager; and developed major goals which are the bases of its 1986 work plans.

The committee meets every 2 weeks on the Wednesdays before paydays from 9 to 11 a.m. For more information, please contact the committee representative or alternate representative from your BID or NIH Federal Women's Program manager, Barbara Iba. ☐

Dr. James Wyngaarden, Director of NIH, accepts membership card #1 from Agnes Richardson, R&W is NIH's non-profit employee service and recreation organization. Others shown (l to r) are: C. Alan Moore, first vice president: David Brightwell, second vice president and membership drive chairperson and Randy Schools, R&W general manager.

NICHD's RIFs (Reduction in Fat) Defeat NCI in Battle of Bulge

After 12 weeks of competing in the first NIH Weight Loss Competition, the Blair Blimps of NCI were defeated by the RIF (Reduction in Fat) members of NICHD. The NICHD competitors lost 152.5 pounds and reached 31 percent of their goal of 486.5 pounds, while the NCI group lost 203 pounds of the 1,128 pounds pledged or 18 percent of their goal weight.

In line with their own team strategy, each team tried to achieve the greatest percentage of its goal (defined as the difference between desirable weight and actual weight of the team's members). All competitors received a copy of a behavior modification manual for weight loss which included information on self monitoring, nutrition, exercise, altering the eating environment and eating styles and were provided with specific instruction on how to lose weight so as to guarantee appropriate weight loss with good health in mind.

After a weekly weigh-in on the same scales, a score card was used to keep each team informed of the opposition's progress at achieving its goal weight. Prize money amounting to $280 was apportioned by the R&W to the winners according to the number of pounds lost.

Special thanks for this successful activity goes to the NCI and NICHD participants, members of the NCC's Subcommittee on Nutrition Education, R&W, Occupational Medical Service personnel, and to Dr. Kelly Brownell, associate professor, department of psychiatry, University of Pennsylvania School of Medicine, who was instrumental in setting up the weight-loss competition. ☐

No Link Between Breast Cancer and Pill, Comprehensive NICHD, CDC Study Finds

Young women who have used oral contraceptives are at no greater risk of developing breast cancer than are women who never used birth control pills, according to a new study appearing in a recent issue of the British medical journal *Lancet*.

"Until now, concern has been raised about the possibility of pill use leading to an increased rate of breast cancer in young women," said Dr. Bruce Stadel of the National Institute of Child Health and Human Development.

This is the first report from the Cancer and Steroid Hormone Study that looks specifically at the relationship between oral contraceptive use and breast cancer that develops at an early age. (The Cancer and Steroid Hormone Study was conducted by the Centers for Disease Control and NICHD.)

In the United States, the birth control pill is the second most popular method of contraception, next to sterilization. About 70 percent of all women have used oral contraceptives at some time during their reproductive years.

The study explored several factors suspected of influencing the risk of breast cancer among pill users: how old the women were when they started using the pill, how long they used it, the amount of the hormone progestogen in the birth control pills, and whether they used the pill before having their first child.

Dr. Stadel and researchers at the CDC selected 2,088 women between the ages of 20 and 44 who were diagnosed with breast cancer between 1980 and 1982. These women, who lived in eight different areas in the United States, were compared to 2,065 women of similar ages and the same areas who did not have breast cancer.

Regardless of the age the women started using the pill or how long they used it, the researchers found no greater risk of breast cancer compared to women who had never used birth control pills.

In fact, the birth control pill neither raised nor lowered risk of breast cancer even when the women started using the pill before the age of 20 and continued to use it for more than 4 years, Dr. Stadel said.

Two other issues—the use of high progestogen pills and use of the pill before having a first child—were examined because they formed the basis for two reports published in late 1983 that rekindled the debate over the link between the pill and breast cancer in young women.

Since the results of these studies have been controversial and some scientists questioned their validity, Dr. Stadel and his colleagues looked at these issues very carefully. The Cancer and Steriod Hormone Study is one of the most thoroughly designed studies ever performed on this topic and avoids many of the flaws identified in previous studies, according to Dr. Stadel.

In this new study, Dr. Stadel said that even women who used high progestogen pills for more than 6 years before age 25 had no greater risk of developing breast cancer than did women who never used birth control pills.

Also, women who used the pill for more than 4 years before the birth of their first child had no greater risk of breast cancer than nonpill users, the researchers found.

"We now have a good deal of confidence that pill use does not affect young women's risk of breast cancer," Dr. Stadel said. And since most of the known risks from the pill are related to cardiovascular disease, which is rare among young women, he concluded that "the pill appears to be a safe method of birth control for most young women who use it." □

NCI Announces Expansion of New Cancer Therapy

The National Cancer Institute has announced that six medical centers will begin treating advanced cancer patients within the next 2 months with the experimental immunotherapy developed at the NCI by Dr. Steven A. Rosenberg and colleagues. An estimated 300 patients, about 4 per month at each center, will be treated during the year.

The six participating centers will each receive approxiamtely $500,000 from NCI to conduct the research.

They are:

New England Medical Center, Boston; Montifiore Medical Center/Albert Einstein College of Medicine, N.Y.; Loyola University University Medical Center, Ill.; University of Texas Health Science Center at San Antonio/ Audie Murphy Veterans Administration Hospital; Cancer Research Institute of the Medical Center at the University of California, San Francisco, and City of Hope National Medical Center, Duarte, Calif. □

Facts About Breast Cancer

To inform women on all aspects of breast cancer, the Secretary of Health and Human Services and National Cancer Institute sponsored a 1-day conference in November 1985 on "Breast Cancer: A Report to American Women."

Experts presented the latest findings on prevention, detection and diagnosis, treatment, breast reconstruction, psychosocial factors, and where to get help and information about this disease, which 1 in 11 American women will eventually develop.

Conference Highlights

Some highlights:

- Studies show that monthly self-examination of the breasts, combined with mammography in women over 50, can reduce breast cancer mortality by 30 percent and save 10,000 lives a year. (One conference participant suggested that women who are reluctant to examine their own breasts should have a physician examine them frequently.)
- Experts also urged all women to have regular medical checkups, and to get prompt medical care for unusual lumps or changes in the breasts.
- Risk factors associated with the development of breast cancer include a personal history of breast cancer, a family history of the disease (especially a mother or sister) and age (more than 80 percent of all breast cancers occur after age 50). Obesity, a high fat diet, and the increasingly prevalent delayed childbearing by today's working women may also be important risk factors.
- A treatment option available today for many women—lumpectomy followed by radiation therapy—can spare many patients from undergoing mastectomy (breast removal).
- For many women who have a mastectomy, breast reconstruction techniques have progressed greatly during recent years.
- To continue progress against breast cancer, one speaker urged women with the disease to talk to their physicians about the possibility of participating in clinical trials. For more information about such studies, call 1–800–4–CANCER.
- Another speaker recommended that the term "breast cancer victim" be replaced with "breast cancer patient," since the former implies hopelessness and helplessness. "Cancer is always a crisis," she said, "but it need not be a catastrophe."—**Maureen Mylander** □

NIMH Offers Free Tape On Statistics Gathering

The Survey and Reports Branch within the Division of Biometry and Applied Sciences, National Institute of Mental Health, has announced the release of a new videotape program entitled, "Making the Numbers Work for You." This videotape chronicles the development of a system for gathering statistical information on services to the Nation's mentally ill.

Early attempts at recording and classifying data about psychiatric patients began in 1840. At that time, U.S. census marshals were asked to include the category of "insane and idiotic" in their door-to-door census taking.

Information Changes

This videotape describes the changes and improvements made in information gathering through the years; the period of development since 1949, when information collection responsibilities were assumed by NIMH, and recent trend data on mental health services and patients.

The videotape is designed to provide the viewer with a better understanding of how and why the Federal Government, in collaboration with the states, goes about collecting this much-needed information.

"Making the Numbers Work For You"—25 minutes long—is available to individuals working in the mental health field. It is recommended as a training tool for colleges and universities in the fields of mental health, public health, statistics, disciplinary training in psychiatry, psychology, sociology, social work, psychiatric nursing, and similar fields.

No Charge

The NIMH branch will be happy to provide such workers with an individual copy of this videotape for use as needs require. To take advantage of this offer, send the following blank videotape(s):

For ¾″ machines—one 40-minute tape
For ½″ machines—one VHS t-30 tape
For beta machines—one 30-minute tape.

There is no charge for this service. Send your blank tape(s) and a cover letter to: Survey and Reports Branch, Division of Biometry and Applied Sciences, National Institute of Mental Health, Rm. 18C07, 5600 Fishers Lane, Rockville, MD 20857.

For additional information call: (301) 443-3343. □

Sexually Active Persons Advised To Take Annual Chlamydia Test

Sexually active individuals—especially women under 35—should be tested at least once a year for a common sexually transmitted disease caused by a bacterium called chlamydia. This advice appears in a fact sheet on chlamydia prepared by the National Institute of Allergy and Infectious Diseases.

Until recently, detection of this infection by *in vitro* (test tube) cultivation had been costly and available at only a few labs. Then, NIAID-supported scientists at the University of Washington, in collaboration with Dr. Milton Tam of Genetic Systems, developed a monoclonal antibody highly specific for chlamydia.

In a later NIAID-supported multicenter trial, this antibody, coupled with a fluorescent dye, was used to test genital secretions directly from patients. The test accurately detected chlamydial infections within minutes. An inexpensive and rapid test for chlamydia is now available commercially.

Outside the lab, chlamydial infections are difficult to recognize because they often cause few or no symptoms and may be mistaken for gonorrhea, which often occurs at the same time. Thus, many chlamydial infections go undetected until complications develop.

In men the infection most commly causes nongonococcal urethritis, a usually mild inflammation of the urinary passage characterized by painful urination and a watery discharge. In women, symptoms—when they occur—include itching and burning in the genital area, vaginal discharge, pelvic pain, and bleeding between menstrual periods.

The complications of untreated chlamydia infections are more frequent, more severe, and longer-lasting for women than for men. Of a million cases of pelvic inflammatory disease that occur each year in the United States, up to half are caused by chlamydia. Ten to twenty percent of these cases result in infertility. Other complications include miscarriage, premature labor, infections in newborns, and ectopic pregnancy (in which the fetus forms in the fallopian tubes rather than in the womb).

While many people don't know about chlamydia, this type of infection is more common than gonorrhea, syphilis and genital herpes combined. Three to five million new cases are diagnosed annually in the U.S. The highest risk group is sexually active adolescents. But the disease is not limited to those with many sexual partners and affects people of all ages and socioeconomic levels.

Once diagnosed, chlamydia infections can be treated with tetracycline or erythromycin, or with one of these antibiotics plus peniciliin if gonorrhea is also present. Sexual partners of the infected person should also be notified and treated. As the chlamydia fact sheet points out, the use of condoms and other barrier methods of birth control such as diaphragms may help prevent the spread of chlamydia and other sexually transmitted infections.

For a free copy of the chlamydia fact sheet, write to Chlamydia/HL, NIH, Bldg. 31, Rm. 2B23, Bethesda, MD 20892.—**Maureen Mylander** and **Esther McBride**

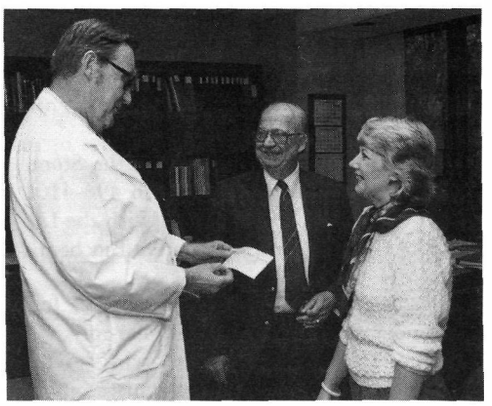
STEP Sponsors Forum On Cooperative Agreements

The Staff Training in Extramural Programs (STEP) Forum Committee will sponsor a forum on current perspectives on cooperative agreements.

The forum will be held on Tuesday, Mar. 18, from 1:30 to 4 P.M. in Wilson Hall, Bldg. 1.

The forum is open to all NIH professional and support staff. No preregistration is required. For additional information contact the STEP office, at 496-1493. □

*Part of the secret of success in life is to eat what you want and let the food fight it out inside.—**Mark Twain***



Clinical Center Director John Decker (l) accepts a $5,112.86 check for the hospital's Patient Emergency Fund from Jorgen Kolle, project manager of Ober-United Travel Agency, and Karen Kolle, site manager of Ober-United offices at NIH. The company will donate a percentage of the value of each personal (non-Government) air ticket purchased at NIH to PEF.

Three Fogarty Scholars Arrive at NIH

Dr. David Brown, Welcome professor of pharmacology and department chairman at the School of Pharmacy, University of London, arrived Feb. 11 for his second term as a Fogarty Scholar-in-Residence. He will continue his association with Dr. Michael Brownstein at the Laboratory of Cell Biology, NIMH.

Professor Brown has contributed significantly to the understanding of neuropharmacological and electrophysiological phenomena. He was among the first to use a radiolabeled neurotransmitter antagonist to determine the distribution of receptors. His studies of active and passive ion fluxes in ganglia and of neuronal/glial interactions are well regarded.

Professor Brown will be in residence until mid-June 1986. He will also have an office in Stone House and can be reached on 496-4161.

Professor Aharon Razin arrives Feb. 15 for his last term as a Fogarty Scholar-in-Residence.

Professor Razin is a graduate of the Hebrew University Hadassah Medical School in Jerusalem, where he obtained his Ph.D. in 1967. After holding several positions in his university, he spent several years in the United States. He was a visiting scientist with Dr. F. Sanger in 1971 at the Medical Research Council Laboratory in Cambridge, England. Today he is professor of biochemistry in the Hebrew University and head of the department of cellular biochemistry, Hebrew University Medical School, in Jerusalem.

Dr. Razin is well-known for his work on the regulation of genetic expression; in particular, he has opened up the field of DNA methylation and its relationship to gene expression. During his first term he and his sponsor, Dr. Giulio Cantoni, NIMH, organized an FIC conference on "The Chemistry, Biochemistry and Biology of DNA Methylation," held Apr. 17-19, 1985. The proceedings of this conference were recently published by Alan R. Liss, New York, N.Y.

Dr. Razin will have an office in the Stone House, where he can be reached on 496-4161. He will continue to be associated with the Laboratory of General and Comparative Biochemistry, NIMH.

Professor Jerker Porath arrives Feb. 15 for his second term as a Fogarty Scholar-in-Residence. He will be associated with several laboratories: Laboratory of Biochemistry, NCI, where he will collaborate with Dr. Elbert Peterson; Laboratory of Chemical Biology, NIADDK, with Dr. Alan Schechter, and the Molecular, Cellular and Nutritional Biochemistry Branch, NIADDK, with Dr. Irwin Chaiken.

Dr. Porath was educated in the Uppsala public schools in Sweden. He entered Uppsala University in 1942, graduating in 1946. He got his Ph.D. in 1950 and was granted a Swedish higher doctorate in 1957.

Since 1957 he has held successively higher positions in the University of Uppsala. In 1968 he succeeded the late Arne Tiselius as professor of biochemistry. He has conducted research and collaborated with many laboratories in Germany, the United States, Japan and Denmark. He is a member of the National Academies of Science in the USSR, Czechoslovakia and Romania, besides the Royal Academy of Science. Among the many honors he has received are the Sir Frederick Gowland Hopkins Medal Award in 1979, the Sixteen Heyman prize, the Tswett Medal and the Gold Medal of the Royal Swedish Academy of Engineering.

Professor Porath is particularly well known for his work on methods for separation of large biologically active molecules. Besides the original work on materials for sieving proteins and other macromolecules according to molecular size, which led to the development of Sephadex, Dr. Porath has made a significant contribution to the technique of affinity chromatography and to the development of specific methods for isolating single species of macromolecules.

Professor Porath will be in residence until May 15. He will return for his third and final term in 1987. He can be reached in the Stone House on 496-4161. □

Dr. John Alexander McMahon, president of the American Hospital Association, recently visited with NLM Director, Dr. Donald A. B. Lindberg. The AHA and NLM cooperate to produce Health Planning and Administration, one of the MEDLARS databases.

Two DRG Staffers Retire

Two members of the Division of Research Grants recently retired from Federal service, **Dr. Robert M. Leonard** and **Mrs. Betty Reed.**

Dr. Leonard retired after 21 years at NIH. He came to NIH as a grants associate in 1964 from the George Washington University School of Pharmacy where he had served in teaching and administrative activities for 13 years. After completing 1 year of training in the GA program, he was appointed executive secretary of the Metabolism Study Section in DRG.

In addition to his responsibilities as executive secretary of the Metabolism Study Section, Dr. Leonard served the last 15 years as a referral officer in the Assignment Unit of the Referral Office, Referral and Review Branch, assigning grant applications to initial review groups and to the NIH awarding BID.

Dr. Leonard served on the Grants Associates Board and was Preceptor to several GAs.

He received the Sustained High Quality performance Award in 1973 and the NIH Merit Award in 1982.

He and Mrs. Leonard plan to remain in the Washington area.

Mrs. Reed came to NIH from the Government Accounting Office in 1953. She worked as a travel clerk in the National Institute of General Medical Sciences before transferring to the DRG Statistics and Analysis Branch, where she worked as a computer systems analyst first and then as a program systems analyst.

Mrs. Reed is an avid golfer and was a member of the NIH Golf League. She plans to continue her golf and also plans to travel to Florida Texas, and Washington to visit her children and grandchildren. Later, she plans to visit Ireland. □

New DRG Chartbook Available

A new edition of the statistical chartbook "DRG Peer Review Trends," which focuses on the characteristics of members of DRG study sections and Institute's review groups from 1975 to 1984, is available.

This publication contains a series of charts and accompanying commentary concerning increased workload, changes in educational and other demographic characteristics, representation of women and minorities, various institutional aspects of membership, the success of members as NIH grant applicants, and other topics.

Copies can be obtained from the Statistics and Analysis Branch, DRG, Westwood Bldg., Rm. 1A18, (301) 496-7401. □

4 Digestive Disease Centers Funded by NIADDK

Four new digestive disease core research centers to investigate the underlying causes, diagnoses, treatments, and prevention of digestive diseases have been established by the National Institute of Arthritis, Diabetes, and Digestive and Kidney Diseases.

These centers, funded at approximately $2.6 million for their first year of operation, are designed to enhance the effectiveness of groups of research scientists in their studies of digestive diseases and disorders. Each of these centers brings together basic scientists such as immunologists, biochemists, and clinicians such as surgeons, endoscopists, and radiologists.

The centers facilitate cooperative research among these investigators by making centralized resources available for research projects and by encouraging scientists to develop new investigations and collaborations.

The four centers and their first-year funding levels are:

Harbor-UCLA Medical Center in Torrance, Calif., $924,000; the University of North Carolina at Chapel Hill, $667,000; the University of Minnesota at St. Paul, $632,000; and the University of Colorado at Denver, $414,000.

The center at Harbor-UCLA Medical Center is directed by Dr. William J. Snape, a professor of medicine and chief of the division of gastroenterology. Investigators at this center are concentrating their research on the cause of inflammatory bowel diseases (IBD), primarily Crohn's disease and ulcerative colitis, and development of new treatments for the 2 million Americans who suffer from these serious and often debilitating ailments.

For example, Dr. Snape said, "The center supports studies that examine the immunologic responses of patients with IBD. This research focuses on determining genetic abnormalities that may characterize a person's predisposition for developing IBD."

Dr. Don W. Powell is the director of the new center at the University of North Carolina at Chapel Hill. Dr. Powell, a professor of medicine and chief of the university's division of digestive diseases and nutrition, will oversee research on various aspects of diarrheal diseases.

Scientists at this center are focusing on three major digestive problems: infectious diarrhea, irritable bowel syndrome, and inflammatory bowel disease. Specific projects already under way include investigations of intestinal viruses, intestinal bacteria, the role of hormones in Crohn's disease and ulcerative colitis.

Another aspect of this center is its collaboration with North Carolina State University's School of Veterinary Medicine. According to Dr. Powell, one of the most interesting things about infectious diarrhea from a medical viewpoint is that some of the same agents that cause this ailment in humans may also cause diarrhea and death in newborn livestock.

Thus having scientists who study animals collaborating with faculty from the medical school and school of public health should enable center researchers to take advantage of that similarity.

Dr. Joseph R. Bloomer, a professor of medicine, will direct research activities of the center at the University of Minnesota in Minneapolis/St. Paul. Investigations at this institution are focused on three areas related to advanced liver disease: abnormal liver metabolism due to both inherited and acquired liver disorders, development of liver damage due to viral hepatitis, and problems related to liver transplantation.

"Each year 30,000 to 50,000 people in the United States die from complications of advanced liver diseases. Our center has been established to further the understanding of the cause of these complications, and thereby to promote better care of patients with advanced liver disease," Dr. Bloomer said.

Dr. Francis R. Simon, a professor of medicine and chief of the division of gastroenterology, directs the center at the University of Colorado at Denver, where scientists are studying liver and biliary tract diseases.

Research projects at this center are focused on three primary areas: disorders of bile secretion, which include drug toxicity, cholesterol gallstone disease, and jaundice; disorders of liver lipid metabolism, which may cause cholesterol gallstones and atherosclerosis; and liver cell injury caused by hepatitis B, drugs, metals, or liver cancer.—**Bill Hall** □

Chamber Orchestra Concert, Mar. 1

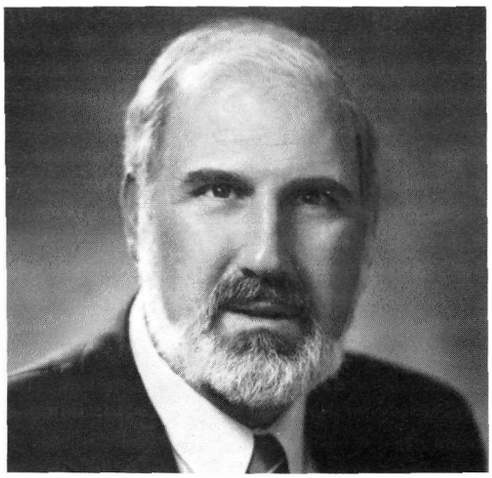
The NIH R&W Chamber Orchestra will present a second concert under its new conductor, Vladimir Svoysky, on Sunday, Mar. 9, at 7 p.m., in the Masur Auditorium at the Clinical Center. The all-Mozart program includes the Symphony No. 20 in D and the Piano Concerto No. 20 in D minor.

Tickets are $5 for adults; Clinical Center patients and children under 12, free. Tickets will be available at the R&W Activities Desk in Bldg. 31 and the R&W store in the Westwood Bldg.

Donations are being sought for the orchestra and checks should be made out to the NIH R&W Chamber Music Association and sent to Dr. J. B. Wolff, Westwood Bldg., Rm. 236B, NIH, Bethesda, MD 20892. □

Dr. Bert Shapiro Named Pgm. Director at NIGMS

Dr. Bert Shapiro has been appointed deputy director of the Cellular and Molecular Basis of Disease (CMBD) Program, National Institute of General Medical Sciences.



Dr. Shapiro

Since coming to NIGMS in 1976, Dr. Shapiro has been a program administrator in, and then chief of, the CMBD Cellular Basis of Disease Section.

He continues in these roles, administering grants on topics ranging from the intricacies of molecular interactions in cells to overall cell physiology. Dr. Shapiro also administers NIH's largest group of predoctoral training grants in cellular and molecular biology.

NIGMS supports nondisease categorical basic research—research that is not yet targeted to a particular disease or population group. The CMBD program works to strengthen the range and depth of cellular and biochemical biology grants at NIGMS, their major home at NIH. The rapid spread of recombinant DNA applications to cellular and molecular biology has expanded the number of good questions researchers can ask, as well as approaches they can take.

Dr. Shapiro helps grantees capitalize on new research areas, and counsels grantees about the disease or specific population group-oriented institutes to which their research may lead them.

Prior to joining NIGMS, Dr. Shapiro taught biology at Harvard University for 9 years, and did research on neuromuscular systems and toxin action. He received a B.A. in biology, *summa cum laude*, from Swarthmore College in 1962, an M.A. from Harvard Unversity in 1965, and Ph.D. in biology from Harvard in 1967. He is a member of numerous professional organizations, and even finds time to study voice and sing in community choirs. □

Dr. Ernest McConnell Named Director Of NIEHS' Toxicology Research Program

Dr. Ernest E. McConnell, a doctor of veterinary medicine, has been appointed director of the Toxicology Research and Testing Program (TRTP) within the National Institute of Environmental Health Sciences.

The appointment by Dr. James B. Wyngaarden, NIH Director, was announced in Research Triangle Park, N.C., by NIEHS Director Dr. David P. Rall.

Dr. McConnell is a commissioned officer in the U.S. Public Health Service.

He has served as acting director TRTP since September 1983, heads a staff of 137 and has responsibility for a $58 million budget.

While serving as acting director of TRTP, Dr. McConnell received the PHS Outstanding Service Medal in July 1985.

His research interests have dealt with critical questions of the environmental health sciences such as the pathologic effects of polychlorinated biphenyls (PCBs), dioxins, asbestos, and methyl isocyanate, among other substances.

Dr. McConnell and colleagues have demonstrated that dioxin in contaminated soil remains bioactive and available to biological organisms including humans. His study showed that contact with soil did not neutralize dioxin contaminants as previously thought.

Coordinates Research

He is currently coordinating the Institute's research into the long-term health effects of methyl isocyanate, the chemical associated with the mishap at an American-owned plant in Bhopal, India. The author or coauthor of over 100 papers or book chapters in the area of pathology and toxicology, he traveled to India in February (1986) to confer with health authorities on NTP/NIEHS research on methyl isocyanate. He will coordinate presentations on this subject by scientists on his staff at the annual meeting of the Society of Toxicology in New Orleans in March.

Dr. McConnell's awards and honors include the PHS Commendation Medal in 1978; the U.S. Air Force Meritorious Service Medal in 1974; and the Distinguished Citizen Award at Hill Air Force Base, Utah, in 1964.

An adjunct professor of veterinary pathology at North Carolina State University in Raleigh, Dr. McConnell is also a diplomate and on the board of directors of the American Board of Toxicology, and a member of the examining committee of that board. He is also a diplomate of the American College of Veterinary Pathologists.

He is a 1957 graduate of Ohio State University, where he also received his D.V.M. degree

Dr. McConnell

in 1961. He received his M.S. in the department of pathology at Michigan State University in 1966, and completed a residency in comparative pathology at the Armed Forces Institute of Pathology, Walter Reed Army Medical Center in 1968.

Before joining NIEHS in 1974, Dr. McConnell served as a veterinary pathologist in the U.S. Air Force. His duty took him to the Veterinary Research Institute in Onderstepoort, Republic of South Africa, and Wright-Patterson Air Force Base, Dayton, Ohio. □

International Expert To Lecture on Dementias

"Prospects for Epidemiological Research on the Dementias" is the title of a National Institute of Aging seminar featuring Dr. A. Henderson, director of the Social Psychiatry Research Unit, The Australian National University, Canberra, Australia. The seminar will be held in Bldg. 31, Conf. Rm. 4 on Wednesday, Mar. 12 from 11:30 a.m. to 12:30 p.m.

Dr. Henderson is also director of the World Health Organization (WHO) Collaborating Center for the Epidemiology of Mental Disorders, and is an eminent authority on current issues in dementia research confronting the international scientific community.

Dr. Henderson will discuss the activities of a WHO scientific group on dementias in the elderly which is attempting to develp uniform diagnostic criteria to identify Alzheimer disease and differentiate between moderate and more severe forms of the disorder. □

NHLBI Advisor Killed By Hit-and-Run Driver

Dr. Marion Barnhart, 64, professor of physiology at Wayne State University, Detroit, was killed recently by a hit-and-run driver. A nationally recognized researcher in bleeding disorders, Dr. Barnhart also was a member of the NHLBI's Division of Blood Diseases and Resources Advisory Committee.

A native of Missouri, Dr. Barnhart received her Ph.D. from the University of Missouri. Her research centered on the mechanisms of blood clotting and she was one of the pioneers in the use of the electron microscope to study blood platelets. She had been a member of the university's faculty for more than 30 years.

For 20 years Dr. Barnhart, who lived on an 80-acre farm outside Detroit, had raised and shown boxer dogs from her own kennels. She was active in the movement to reduce the use of animals in medical research, though at the same time a staunch defender of the necessity for animal research.

She was the 1985 recipient of Wayne State University's Lawrence M. Weiner Award given to the nonalumnus who has made significant contributions to science and medicine. She also was the first to receive the school's Graduate Faculty Award.

The university has announced the establishment of the Marion Barnhart Memorial Fund in her memory, the proceeds of which will support research in transfusion medicine and blood coagulation.

Dr. Clarice D. Reid, chief of NHLBI's Sickle Cell Disease Branch, is accepting contributions for the fund from NIH staff, and will forward them on behalf of Dr. Barnhart's NIH friends. Dr. Reid can be reached on 496-6931. □

Walking/Hiking Club Schedule

Saturday, Mar. 8: Glover Archbold Trail, D.C.—An easy 8 mile hike in the District. Meet at the Medical Center Metro at 9 a.m. Hike from Foggy Bottom Metro to Tenley Town Metro. For more information call Elizabeth Weisburger (w) 496-6272, (h) 530-4042.

Sunday, Mar. 16: Old Rag, Va.—A strenuous 8 mile hike with 2,200 ft. elevation change. Bring a packed lunch and sturdy footware. Consensus permitting, the group will dine somewhere on the return trip. Meet at NIH at 8:30 a.m. For information call Stephen Nightingale (w) 921-2601, (h) 330-2621. □

Stanford Scientists Change Cell Functions By Manipulating DNA's Controlling Signals

In basic research with broad implications for understanding development of living things, Stanford Medical School scientists have converted human liver—and other—cells into muscle cells by manipulating signals that control their genetic material, DNA.

The feat is one of the first convincing demonstrations that cells destined for one specialized fate can switch to another, said Dr. Helen Blau, assistant professor of pharmacology and head of the research team.

The finding contradicts previous notions that specialized cells have a fixed and irreversible pattern of gene expression, she added.

In the laboratory, Dr. Blau and her colleagues succeeded in reprogramming DNA from human liver, lung, skin, and cartilage cells so that it functions more like the DNA in muscle cells.

The ability to change the functional characteristics of cells provides scientists with a new tool to study such diseases as cancer, developmental afflictions such as muscular dystrophy, and to develop more effective strategies for gene therapy.

The work was reported in the Nov. 15 *Science* magazine special "Frontiers in Biology" issue devoted to research areas that have "great potential for the future."

Dr. Blau's coauthors on the article are Grace Pavlath, Edna Hardeman, Choy-Pik Chiu, Laura Silberstein, Steven Webster, Steven Miller, and Cecelia Webster.

Experiments Reported

The experiments reported by the Stanford researchers establish a new way to study the genetic basis of differentiation, the process by which cells descended from a single ferilized egg become highly specialized to perform different functions, Dr. Blau said in an interview.

All the millions of cells in an individual's body contain the same genetic information in their DNA. Yet, as cells develop into specialized organs, they use different portions of the genetic code.

Skin cells, for example, make certain proteins found only in the skin, while muscle cells produce proteins involved in muscle contraction. Each cell type activates a different set of genes in the DNA in order to produce the proteins it needs to carry out its particular role.

Scientists understand very little about how cells activate or suppress different sets of genes. It's one of the most intriguing unsolved puzzles of biology, Dr. Blau said.

The Stanford scientists fused two different kinds of cells—human and mouse—to create a hybrid cell called a heterokaryon. In each case, they fused a mouse muscle cell with a human cell specialized for a nonmuscle function such as skin, lung, or liver.

The result was that quiescent muscle-specific genes in the human nonmuscle cells became active, producing proteins that are characteristically found only in specialized muscle cells, Dr. Blau said.

The research was supported by grants from the National Institutes of Health, the Muscular Dystrophy Association of America, the March of Dimes Foundation, and the National Science Foundation.—**Stanford Medical Center** *News* □

Reducing Hip Fractures Could Save Lives, Millions

Even a small percent reduction in the incidence of hip fractures could save several thousand lives and several million dollars each year, according to a major review article in a recent issue of *Epidemiologic Reviews* by epidemiologists Drs. Steven R. Cummings at the University of California, San Francisco, and Jennifer Kelsey at Columbia University, N.Y.

In 1983, the total cost of osteoporosis and osteoporotic fractures of the hip, spine, wrist, and other bones was an estimated $6.1 billion in the United States alone. The researchers note that fractures of the hip are associated with more deaths, disability, and medical costs than all other osteoporotic fractures combined.

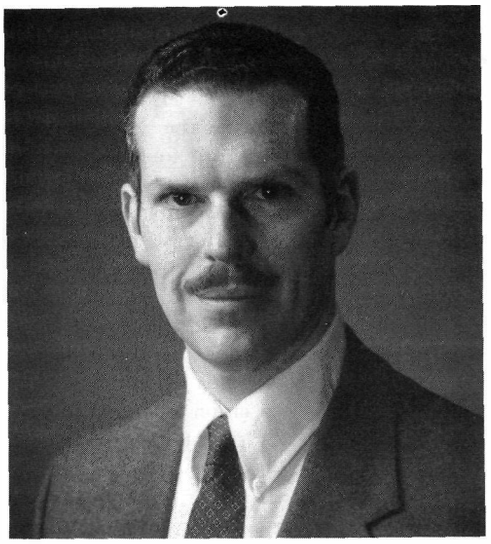
About 210,000 hip fractures occur each year in the United States. Moreover, as the number of elderly persons increases, so will the magnitude of the problem.

According to the article, there appear to be two general strategies for preventing osteoporotic fractures. First is the prevention of bone loss. This strategy includes such measures as postmenopausal estrogen therapy, increased calcium, and regular exercise.

The second approach is to prevent injuries that cause the fractures. According to Dr. Kelsey, "In the already osteoporotic elderly, prevention of falls probably offers the greatest potential for reducing the risk of fractures." She further added that many environmental hazards that contribute to falling can be modified. Moreover, it is possible that neuromuscular function can be improved by exercise or specific types of physical training.—**Barbara Weldon** □

Dr. S. J. Hausman Named To New Post at NIADDK

Dr. Steven J. Hausman has been appointed deputy director of the Division of Arthritis, Musculoskeltal and Skin Diseases, National Institute of Arthritis, Diabetes, and Digestive and Kidney Diseases.



Dr. Hausman

He will continue to serve as director of the Arthritis Centers Program, a position that he has held since 1978. As deputy director, his new responsibilities include both administrative and scientific leadership of the division's activities.

Dr. Hausman received his B.A. degree in biology, his M.S. degree in insect physiology in 1967, and his Ph.D. degree in immunogenetics in 1972 from the University of Pennsylvania in Philadelphia.

Before joining NIH, he worked at the Wistar Institute in Philadelphia while pursuing his doctorate. Thereafter, he did his postdoctoral research at the Institute for Cancer Research (Fox Chase) in Philadelphia.

Dr. Hausman joined NIH in 1975 as a staff fellow at the National Institute on Aging's Gerontology Research Center in Baltimore, Md. In 1977, he came to NIADDK to serve as special assistant to the associate director for arthritis, musculoskeletal and skin diseases. He became director of the Arthritis Centers Program in 1979.

He has demonstrated qualities of leadership through service on several NIH committees and in community affairs, for which he has received many honors. These include the NIH Superior Work Performance Award and the Volunteer Activist of the Washington Metropolitan Area Award. □

APPOINTMENT

(Continued from Page 1)

sion for the Protection of Human Subjects of Biomedical and Behavioral Research. The commission's recommendations are the basis for current DHHS regulations for the protection of human subjects in research.

An officer in the U.S. Public Health Service, Dr. Alexander has received several awards from the PHS. These include a Commendation Medal in 1970 and both a Meritorious Service Medal and a Special Recognition Award this past year. Dr. Alexander was also named to Who's Who in America for the year 1984-85.

Dr. Alexander received his undergraduate degree from Pennsylvania State University in 1962 and his medical degree from the Johns Hopkins University School of Medicine in 1966. He also served his internship at Hopkins.

A diplomate of the American Board of Pediatrics and a member of the American Academy of Pediatrics, the Society for Developmental Pediatrics and the Association for Retarded Citizens, he is licensed by the Maryland Board of Medical Examiners.

Dr. Alexander is the author of numerous papers and book chapters, most relating to his research interests in developmental disabilities. □

Housing for Medical Students

NIH's Clinical Elective Program for Medical/Dental Students is looking for affordable, short-term housing for medical students within walking distance of the Clinical Center.

Medical students are at NIH for 8–10 weeks at a time, with most students arriving in January, March, and September. On occasion, housing for married couples is also needed.

Persons with a room in their home they would like to rent can call Vicki Malick at 496-2427 for more information. □

Depressional Study Seeks Volunters

Men between the ages of 45 and 55 are needed to participate as normal controls in an NIMH study examining the psychobiology of depression. The study will be conducted during the month of March and requires a hospital stay of 6 nights and 3 weekdays.

Accepted participants will be paid. For further information call Annette Rotter at 496-2141. □

The new NICHD Advisory Council members join NICHD Director Dr. Duane Alexander (l) during their first Council meeting. The new members are (l to r): Dr. Pueschel, Mrs. Hoff, Mr. Willis and Dr. Thomas.

Three New Members Named to NICHD Advisory Council

Three new members were recently appointed to serve on the National Advisory Child Health and Human Development Council.

The new members are **Barbara Hoff,** a registered nurse from Orlando, Fla; Dr. **Siegfried M. Pueschel,** an expert on mental retardation at Brown University in Providence, R.I.; and **Dr. George H. Thomas,** an authority on genetic disorders at Johns Hopkins University in Baltimore, Md.

The appointment of **Dudley Willis,** an attorney with Simonds, Winslow, Willis & Abbott in Boston, Mass., was also extended.

The council is the principal advisory body of the National Institute of Child Health and Human Development. Composed of physicians, scientists and representatives of the general public, the council meets three times a year at NIH to consider applications for research and research training support in the fields of reproductive sciences, child health and human development. Its members also make recommendations to the Secretary of HHS and to the directors of the NIH and NICHD on the Institute's general programs.

Mrs. Hoff has been very active in public service in Orange County, (Fla.), serving in many organizations concerned with health, education and the arts. She has a bachelor's degree from Duke University in Durham, N.C. and a degree in nursing from Bowman Gray School of Nursing in Winston-Salem, N.C.

A practicing physician at Rhode Island Hospital in Providence, Dr. Pueschel is also a professor of pediatrics at Brown University. Prior to that he taught at Harvard Medical School in Boston, Mass. The author of nearly 100 scientific journal articles, Dr. Pueschel earned a medical degree from the Medical Academy in Dusseldorf, Germany, a master's in public health from Harvard University and a doctorate from the University of Rhode Island in Kingston.

Dr. Thomas holds a joint appointment at Johns Hopkins University as a professor of medicine, pediatrics and epidemiology. He is also the director of the biochemical genetics and cytogenetics laboratories at the John F. Kennedy Institute in Baltimore. Dr. Thomas is the author of more than 60 scholarly articles. He received his Ph.D. from the University of Maryland, Baltimore.

Besides being a practicing attorney, Mr. Willis is vice president and director of the George D. Hall Co., a publisher of industrial service and trade directories. He serves on several charitable boards in the Boston area, including the Boys Club, the Massachusetts 4-H Foundation and the Perkins School for the Blind. Mr. Willis has a law degree from Boston University and completed his postgradute legal education at Georgetown University in Washington, D.C. □

Dr. Seymour Cohen To Lecture On History of Chemistry in U.S.

Dr. Seymour Cohen, distinguished professor emeritus of pharmacology, State University of New York at Stony Brook and the Smithsonain Institution, will present a lecture on "The Early Origins of Chemistry and Biochemistry in the United States."

Sponsored by FAES, the lecture will be held on Tuesday, Mar. 4, at 4:30 p.m., in Bldg. 1, Wilson Hall. □

*Trouble creates a capacity to handle it.—**Oliver Wendell Homes Jr.***

Pineal Gland Tied Into Brain's Nerve Network, Not Just Through Hormone Release—Maybe

By Leslie Fink

Turning a popular idea on its head, scientists have discovered that the pineal gland—once thought of as only a hormone-releasing gland located in the brain—is also "hardwired" by nerve-like circuits to other areas of the brain that may influence mood and behavior. These connections may help explain the pineal gland's role in biological rhythms and behavior, including a form of depression called seasonal affective disorder, or SAD.

"It dramatically changes our concept of the mammalian pineal gland," says David Klein, a neuroscientist at the NICHD, who heads the international research team reporting its findings in the Feb. 14 issue of *Science*.

Like a Radio?

"Everyone thought the pineal gland only worked like a radio, sending hormonal messages diffusely through the blood like a radio sends its signals through the air," says Klein. "but it may also work like a telephone, sending messages directly to specific targets through nerves that act like phone wires."

Scientists have known that the pineal gland of cold-blooded animals connects directly to other portions of the brain. Communicating with the brain in this way, the pineal gland is thought to help control daily rhythms in sleep and wakefulness.

But, says Klein, it became a "popular idea" that the gland in humans and other mammals functioned only as a neuroendocrine gland having no direct communication with the brain. "The idea reflected growing interest among American scientists in melatonin," a hormone produced by the pineal gland and released into the blood, says Klein. "Today most researchers work within the confines of that idea."

Recently, Klein turned to his colleagues at the Justus-Liebig University of Giessen in West Germany to study pineal cells in the hamster brain. Earlier work by scientists studying the eye's retina had shown that cells from both the retina and pineal gland contain a protein called the S-antigen (*NIH Record*, Sept. 10, 1985). So Klein and his coworkers borrowed an antibody the eye researchers developed to help them locate S-antigen-containing cells.

Looking through a special microscope at thin, antibody-coated slices of brain tissue, the scientists saw brightly colored pineal cells. They were suprised also to find colored threads running from pineal cells to brain regions known as the posterior commissure and the habenula. These regions in turn connect to brain areas that influence mood, sleep, and behavior.

Nerve Connections

"This forces us to reexamine past data for the possibility that the pineal gland might be functioning by way of nerves rather than hormones," says Klein. "What did we miss that might be explained by this?"

One possibility, Klein suggests, is how the pineal gland might influence SAD, a form of depression that occurs as days grow shorter in winter and disappears when days grow longer in spring. Because melatonin levels in humans appear to be controlled indirectly by the amount of light, SAD researchers have focused mainly on melatonin as the key to this form of depression.

Despite their rigorous efforts to implicate melatonin, though, the researchers have been unable to link melatonin directly to SAD. Some have even abandoned the idea.

But because many SAD patients improve when exposed to bright light, Klein still suspects that the pineal gland plays a role in the disorder. "Maybe the pineal plays a role in mood through these neural (nerve) connections," he says.

And despite the general anatomic similarities among mammals—hamsters and humans—Klein cautions that only continued research will tell whether the nerves he and his colleagues discovered in hamsters exist in humans as well.

Still other research must ferret out exactly how pineal nerves affect human biological cycles and behavior. □

Infant Volunteers Sought For Vocalization Study

Researchers at the National Institute of Child Health and Human Development seek infants born in January 1986 and their mothers to participate in a study of vocal sounds in the newborn. The study will require a visit to the NIH when the infant is 2 and 4 months old. Participants will be paid. For further information, call Julie Sykes at (301) 496-6832. □

The race is not always to the swift, nor the battle to the strong, but that's the way to bet.—**Damon Runyon**

NCI Makes Grant To Study Immune System

The University of Chicago Medical Center has received a $2.8 million Federal grant to study how the body's own immune system mechanisms sometimes can kill cancer cells and how that process might be activated in cancer patients.

The 5-year grant from the National Cancer Institute will aid the work of four research immunologists at the medical center who are looking at various immune system components involved in natural cancer-fighting activities.

"This is an important grant in that it brings together all of the medical center's full-time immunologists to create a single, focused program with shared resources," said Dr. Hans Schreiber, associate professor of pathology and project director.

Dr. Schreiber said he and his colleagues hope the new research program will allow them to bring "novel approaches to cancer therapy that no one else is attempting.

"There is very strong evidence," he said, "that the body's immune system has some powerful cancer-fighting tools at its disposal. We are trying to learn more about those mechanisms so we can harness them for the benefit of patients."

One immune system component under study is the natural killer (NK) cell, a circulating white blood cell that not only can kill cancer cells but can regulate other key cells involved in immune responses.

Another type of cell under investigation, the cytolytic T cell, also has been shown to be an extremely effective and specific killer of tumor cells. Center scientists are studying the biochemical process that triggers this mechanism.

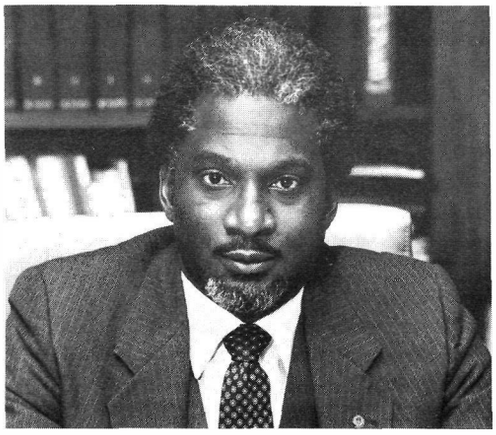
Medical center researchers have been able to cure cancer in laboratory animals by manipulating some of these immunologic components and hope to develop other techniques that eventually may be available for use in humans.

Along with seeking ways to harness the immune system's cancer-fighting potential, investigators will seek to overcome the immune system deterioration that often occurs in cancer patients. Key to this effort are studies of regulatory T cells, which can either stimulate or suppress the immune response as well as produce products that directly kill tumor cells.

Joining Dr. Schreiber in the new project are Drs. Frank Fitch, professor of pathology and director of the medical center's Cellular Immunology Laboratory; Donald Rowley, professor of pathology and pediatrics and director of research at LaRabida; and Jose Quintans, associate professor of pathology and chairman of the committee on immunology.—**University of Chicago Medical Center** *News* □

Meharry Head To Keynote Black History Celebration

Dr. David Satcher, President of Meharry Medical College, will be the keynote speaker at the National Institutes of Health celebration of Black History Month which will be held on Thursday, Feb. 27 from noon to 1 p.m. in the Masur Auditorium at the Clinical Center.



Dr. Satcher

The theme for this year's program is "Blacks in Biomedical Research: Past, Present, and Future."

Following the keynote address, musical selections will be performed by the University of the District of Columbia Gospel Choir. The program will culminate in a tribute to Dr. Martin Luther King, Jr.

In recognition of the contributions of blacks to biomedical research, an exhibit will be on display in the ACRF lobby of the Clinical Center near the Special Events Office, Rm. 1C174. This exhibit will feature prominent black research scientists from past and present, and promising young black research scientists believed destined to be future leaders in their fields.

The program is sponsored by the NIH Division of Equal Opportunity. All NIH employees are invited to attend.

For further information, contact the 1986 Black History Planning Committee chairperson, Levon Parker, 496-5332. □

Wallace P. Rowe Award for Virologic Research

Dr. Peter M. Howley, chief of the Laboratory of Tumor Virus Biology, NCI (second from r), was presented the Wallace P. Rowe Award for Excellence in Virologic Research, Feb. 3, at the second annual Wallace P. Rowe Symposium on Animal Virology. Dr. Howley was cited for his "outstanding contributions in defining the molecular structure and function of papillomavirus genomes." The 2-day symposium, which was held at Lister Hill Auditorium, was sponsored by NIAID. Co-chairpersons for the meeting were NIAID scientists (l to r): Drs. Malcolm Martin, chief, Laboratory of Molecular Microbiology; Janet Hartley, head of the Viral Oncology Section, Laboratory of Viral Diseases; and Dr. Robert Chanock, chief, Laboratory of Infectious Diseases.

Transfusion Lab Seeks Blood for HLA Antibodies Typing

The Department of Transfusion Medicine's HLA Laboratory is looking for women who are currently pregnant or have previously been pregnant to donate a small blood sample to be screened for tissue type (HLA) antibody. The laboratory uses HLA antibodies for its work in doing typings on patients' white cells and platelets.

HLA antisera are not readily available commercially. The major supply is from women who have developed these antibodies during pregnancy.

A 10 ml blood sample (one test tube) is required for which the donor would be paid. Blood samples from all ethnic groups are needed but the laboratory is particularly interested in obtaining samples from Oriental and black persons. This is because the distribution of HLA antigens varies among ethnic groups. Donor identity is kept confidential.

Women interested in donating can call the laboratory at 496-8852 between 8 a.m. and 4 p.m. Monday through Friday to schedule an appointment. □

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