NIH/RAC Will Review Gene Replacement
To Stymie Disease, Not to Alter Heredity

NIH’s Recombinant DNA Advisory Committee has agreed to review proposals for gene transfers to correct genetic defects in human individuals but will not, at present, accept any proposals to alter the individual’s reproductive cells in an attempt to change the set of genes to be passed on to an individual’s offspring.

This somatic-cell gene therapy approach was approved in public session recently by the NIH committee along with lengthy and comprehensive submission guidelines.

The conditions set forth in the points to consider rules will have to be addressed before the NIH RAC committee will endorse proceeding with a somatic (body) gene protocol.

In acting to accept somatic gene therapy proposals, the committee noted:
“Civic, religious, scientific and medical groups have all accepted, in principle, the appropriateness of gene therapy in humans for specific diseases. Somatic cell gene therapy is seen as an extension of present methods of therapy that might be preferable to other technologies.”

Only gene therapy projects funded by NIH in outside institutions or in NIH’s own labs on campus will be reviewed by the NIH/RAC committee, and are the only such projects over which RAC will have any jurisdiction.

Most concern about potential harm which conceivably might result from gene therapy has dealt with possible attempts to alter the hereditary germ cells of humans.

The NIH committee’s action, as noted, specifically excludes consideration of any germ line gene transfer protocols at present.

It noted: “In recognition of the social concern that surrounds the general discussion of human gene therapy, the working group [of the Recombinant DNA Advisory Committee] will continue to consider the possible long-range effects of applying knowledge gained from these and related experiments.”

The committee added: “While research in molecular biology could lead to the development of techniques for germ line intervention or for the use of genetic means to enhance human capabilities rather than to correct defects in patients, the working group does not believe these effects will follow immediately or inevitably from experiments with somatic cell gene therapy.”

(See GENE THERAPY, Page 11)
TRAINING TIPS

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

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Introduction to Working at NIH

Computer Literacy for Secretaries

People & Technology

Leadership Skills for Secretaries

IBM Displaywriter “Special Applications”

Data Base III

Displaywrite 3

for Professionals

Advanced IBM Displaywriter

Advanced Lotus

Computer Literacy for Professionals

Telephone Techniques

Lotus 1-2-3

Delpro (for new users)

SHARE TRAINING:

For complete NIH Training Center information sign on to WYLBUR and enter SHARE TRAINING. First-time users enter: xfr dagl@ugl.@@share(setup) on file37

Adult Education Program on-going 496-6211

Training & Development Services Program 496-6211

The CAREER CURRICULA PROGRAM 496-6211

NIMH Seeks Volunteers

The department of psychobiology, NIMH, is seeking healthy male/female normal volunteers between the ages of 21 and 65 years for a variety of studies that will be conducted during the winter of 1985–86.

Such as:
- completion of two short questionnaires
- participation in nutrition studies which will involve blood sampling
- participation in one or more light studies.

Accepted volunteers will be paid. For further information call Paul Geigel, 496-6981.

Carpool Registration Will Be Held Oct. 30-Nov. 20 For 1986 Stickers

NIH’s annual carpool registration will begin Wednesday, Oct. 30 and end Wednesday, Nov. 20.

To register, all members of a carpool must appear as a group at any of the registration sites listed below. Each carpool will be requested to complete a Carpool Registration card, which asks for the building, room, office telephone number, home address and signature of each member.

Each member must also present an NIH identification card and a vehicle registration certificate for each vehicle registered. Each employee may be a member of only one carpool and will be expected to participate in the carpool at least 4 out of 5 workdays each week.

Vanpools with eight or more members may be assigned a single reserved parking space in the area of the vanpool’s choosing. Interested vanpools should contact the NIH Parking Office, 496-5050.

The 1985 carpool parking permits presently being used will be valid through Nov. 30, 1985. Beginning Monday, Dec. 2, all vehicles parked in the carpools parking spaces before 10:30 a.m. must display new 1986 bumper stickers and hanger permits.

Registration Sites:

Oct. 30-Nov. 20 NIH Parking Office, Bldg. 31, Rm. B11C19 8:30 a.m.-3:30 p.m. Bldg. 10, adjacent to Rm. 1C174 9:30-11:30 a.m. Bldg. 38A, Rm. 9:11 a.m. B1N30-B 1-2 p.m. Bldg. 13, Rm. 2E45 1-2 p.m. Bldg. 36, Rm. 1B07 1-2 p.m. Blair Bldg., Conf. Rm. 110 1-2 p.m. Westwood Bldg., Conf. Rm. 3 9-11 a.m. Fed. Bldg., Rm. B119 1-2 p.m. Landover Bldg., Conf. Rm. C 2:30-3:30 p.m. D

Walk/Run Kicks Off CFC at NIH Oct. 23

The 3rd annual NIH Walk/Run on Oct. 23 will give NIHers a chance to join other fitness enthusiasts, race competitors, and walking experts in kicking off the 1986 Combined Federal Campaign.

Register at R & W Gift Shops by Oct. 10 to reserve your “Give Somebody a Chance” T-shirt.

Trophies to Winners

Trophies will be awarded to winners of the four race divisions, and certificates will be given to all walkers and runners. Starting time is noon in front of Bldg. 1.

For those who would rather cheer the participants on, there will be a display (in front of Bldg. 1) of antique cars owned and restored by NIHers. Exciting door prizes will include two tickets to “La Cage aux Folles” and tickets to a Bullets game.

Whether you’re moving your feet or exercising your vocal cords, you won’t want to miss the Walk/Run festivities on Oct. 23. □
Defect in Bacteria-Fighting Ability of Neutrophils
Prime Cause in Severe Periodontal (Gum) Disease

Kreshover Lecture

Mark Wilson, SUNY Buffalo, N.Y., studied molecular factors involved in the movement of the neutrophil in the disease state.

Their findings revealed a pronounced immune response in LJP patients to attack by periodontal pathogens, particularly Actinobacillus actinomycetemcomitans (Aa), the organism considered to be the primary causative agent. Depressed neutrophil chemotaxis was observed in approximately 70 percent of these patients.

Subsequent research demonstrated that this decrease in cell movement is associated with a reduced number of surface receptors that bind a variety of chemotactic factors. These chemical factors, released in inflamed tissues, signal the neutrophil to move directly toward the infection site.

Hereditary Basis

Further studies by the research team revealed that this chemotactic defect is also found in nondiseased siblings of LJP patients, suggesting a hereditary basis for the abnormality. Moreover, recent investigations show that persons with LJP have a marked reduction in P-110, a glycoprotein on the surface of the neutrophil that may play a key role in regulating the movement of this protective cell.

On management of LJP, Dr. Genco highlighted the successful protocol that combines mechanical or surgical treatment with systemic antibiotic therapy. He further noted that the recent findings about neutrophil defects may lead to additional approaches to LJP that enhance neutrophil chemotactic function. Studies with several agents known to affect neutrophil movement suggest their potential use as an adjunct to current treatment of localized juvenile periodontitis.

Dr. Genco concluded that LJP is perhaps better understood than any other form of periodontal disease. The research challenge, however, is now to prevent individuals at risk from developing the disorder by restoring their neutrophils to full function.

Audio cassette tapes of Dr. Genco's lecture, entitled "Molecular Factors Influencing Neutrophil Defects in Periodontal Disease," can be obtained by contacting the National Institute of Dental Research, Public Inquiries and Reports Section, Bldg. 31, Room 2C-35, Bethesda, MD 20892.

I got a simple rule about everybody. If you don't treat me right—shame on you.—Louis Armstrong

Career Day Program
Set for October 17

"Expand Your Horizons" is the theme for Career Day 1985, sponsored by the NIH Women's Advisory Committee, a component of the Federal Women's Program in the Division of Equal Opportunity. The program will be held on Thursday, Oct. 17, from 11 a.m. to 2 p.m., in the ACRF Amphitheater of Bldg. 10.

Information areas to be featured at Career Day include career development, career pathways, educational opportunities, and employee benefits. One area will be staffed by NIH personnel experts who will give instruction on how to prepare an SF-171.

The program will provide an opportunity to interview NIH employees representing many different job series. They will answer questions and provide expert information about their occupations on a one-to-one basis.

Organizations from within NIH will also be represented. Training information and career advice will be available from DPM's Development and Training Operations Branch. Personnel from the Recruitment and Employee Benefits Branch and the Employee Assistance Program will provide facts and will answer questions about their respective programs.

In addition, representatives of local colleges, universities, and professional organizations will be present to provide information and opportunities for networking.

The Oct. 17 Career Day program is part of a continuing effort to provide information on expressed issues of concern to women. It is a forum for all NIH employees to obtain information about career options.

Information and Insight

Recent hiring freezes, budget restrictions, and the reduction in full-time employees make this year's Career Day more beneficial than ever to NIH employees. Take advantage of this opportunity to gain useful information and insight.

Sign language interpretation will be available. If accommodation for other handicapping conditions is needed, call the Federal Women's Program manager on 496-2112.

For more information regarding Career Day, contact the Women's Advisory Committee representative in your bureau, institute, or division; Carole Yee, Career Day Committee chair on 496-8802; Cynthia Gaines, Women's Advisory Committee chair on 496-1131; or Barbara Iba, NIH Federal Women's Program manager on 496-2112.
NIGMS Employees Get Awards

Twenty-six NIGMS employees were recently honored at the Institute’s annual awards ceremony.

Dr. Ruth L. Kirschstein, NIGMS Director, presented the NIH Award of Merit to Linda V. Roberts, supervisory grants management specialist, Office of Program Activities and Dr. Michael Roberts (far r), associate director for program activities.

Length of Service Certificates were presented to 14 employees for 10 years of service, 5 for 20 years of service, and 4 for 30 years of service.

Dr. Michael Roberts, NIDR Elected COA President

Dr. Michael Roberts, chief of the NIDR Patient Care Section and dental director in the USPHS Commission Corps, was named president-elect of the USPHS Commissioned Officers Association (COA) at the association’s annual meeting held this past summer in Washington, D.C.

COA, founded in 1910, is a professional nonprofit organization whose membership includes over 6,500 physicians, dentists, scientists, engineers, nurses, sanitarians, pharmacists, veterinarians, dietitians, therapists, optometrists, and other general health officers.

Dr. W. Lovenberg, NHLBI, Retires After 27 Years

Dr. Walter M. Lovenberg, chief of the Biochemical Pharmacology Section, NHLBI, will retire this week after 27 years of government service.

A native of New Jersey, Dr. Lovenberg received his B.S. and M.S. degrees from Rutgers University. He began his career at NIH in 1958 as a research fellow of the United Fruit Company. The following year he became a chemist in the then National Heart Institute and continued his education at the George Washington University, from which he received his Ph.D. Dr. Lovenberg was appointed head of the Section on Biochemical Pharmacology in 1968.

Currently he is executive editor of Neurochemistry International and of Analytical Biochemistry. He also serves on the editorial boards of Life Sciences, European Journal of Pharmacology and Journal of Pharmacology and Experimental Therapeutics. Among his numerous awards are the Fulbright-Hays Senior Scholar Award (1979) and the PHS Superior Service Award (1981).

Dr. Lovenberg’s research interests centered on describing the molecular mechanisms responsible for regulating the synthesis of neurohumoral agents, substances released by nerves that stimulate or alter the function of adjoining nerves, muscles or organs.

An offshoot of this interest took him into the exploration of the molecular basis of hypertension in spontaneously hypertensive rats. During his early laboratory studies he isolated, purified and crystallized a red oxidation-reduction protein that he named rubredoxin.

Many scientists now active in biochemical pharmacology who began their careers as postdoctoral fellows in Dr. Lovenberg’s laboratory acknowledge his benevolent guidance and recall the adroit sense of humor that enlivens his conversation.

Besides his noteworthy scientific achievements, Dr. Lovenberg attained some degree of recognition among NIH staff as an authority on real estate and investments in it.

His early life on a farm in New Jersey has carried over to his present enthusiasm for gardening, which he satisfies by growing a wide variety of vegetables every summer. In winter, he pursues another of his predilections—downhill skiing on the slopes of West Virginia and Pennsylvania.

Upon retirement, Dr. and Mrs. Lovenberg will move to Cincinnati, where he will become director of the new Division of Biochemical Sciences at the Merrell Dow Research Institute.
Native American Biomedical Students Powwow At Two-Day Research Symposium at MSU

About 60 Native American students—nearly half of whom presented either scientific papers or posters—recently gathered in Bozeman, Mont., for a 2-day science research symposium hosted by the Minority Biomedical Research Support program of Montana State University. The MBRS program at MSU is supported by NIH's Division of Research Resources.

Developed by DRR in 1972 to increase the number of minorities involved in biomedical research, the MBRS program encourages undergraduate students to pursue research careers, and provides predominantly minority institutions with the resources to enhance faculty research skills and to establish biomedical research capability at the school.

According to Dr. Ciricco Gonzales, DRR's MBRS program director, the symposium was the fifth such meeting since 1978 to focus on American Indians. MSU was approved as the conference site because of its proximity to community colleges with large Indian enrollments.

In addition to Dr. Gonzales, featured speakers at the symposium were: Dr. Donald Ahshapanek (Delaware/Nanticoke Tribal Affiliation), professor of biological sciences, Haskell Indian Junior College, Lawrence, Kan.; Dr. Benjamin Pease III (Crow Tribal Affiliation), general internist, Moses Lake Clinic, Moses Lake, Wash.; Dr. Clifton Poodry (Seneca Tribal Affiliation), professor of biology, University of California at Santa Cruz, and Dr. Tacheeni Scott (Navajo Tribal Affiliation), assistant professor of biology, Northern Arizona University, Flagstaff, Ariz.

Poster Sessions

Dr. David Young, professor of pathology at MSU's department of veterinary science, chaired the symposium's planning committee.

According to Dr. Young, oral and poster presentations by students ranged from applied science—contrasting 10-year trends in rheumatic fever and glomerulonephritis, two of the major strep sequelae (resulting diseases) found among Navajo Indians, and development of software capable of predicting two devastating forms of wheat disease—to research dealing with monoclonal antibodies, which Dr. Young characterized as "bordering on the cutting edge of scientific knowledge."

Highlighting the first day's morning sessions was a speech by Dr. Ahshapanek who, turning his attention away from hard science, focused instead upon perseverance, optimism and other traits that Indian students must cultivate if they are to succeed in science careers.

The afternoon session featured a teaching lecture by Dr. Poodry which introduced many students to monoclonal antibodies, their use and value in scientific research.

Detection Methods

In his lecture, Dr. Poodry cited several examples of his own work with monoclonal antibodies, including his use of immunofluorescence and immunoelectron microscopy of viral antigens as examples of detection methods.

Through the use of monoclonal antibodies, Dr. Poodry said, scientists can detect unique antigen specificities at the cell and molecular level.

One related project presented at the symposium, according to Dr. Poodry, is an attempt by Montana State University students to better understand the mechanisms causing bone marrow mast cells to differentiate into subpopulations of mucosal mast cells and connective tissue mast cells. Proliferation of mucosal mast cells in response to intestinal parasite infections, the students theorized, may be due to local tissue factors or preprogramming in bone marrow stem cells.

Excellent Model

The use of mice, concluded the students, is an excellent model for study because of the animal's mast cell deficiency, and will facilitate in vivo studies of mucosal mast cells under the influence of different tissue environments. According to Dr. Poodry, the major significance of this particular research at its present stage is the demonstrated ability to isolate, in quantity, tissue mast cells using a cell sorter.

The next major meeting of the MBRS program will be its annual symposium, scheduled for Apr. 16-19, 1986, in New Orleans, La. Florida A&M University will serve as the symposium's coordinating institution.

Dr. Hoult Receives Gold Medal

Dr. David I. Hoult, Biomedical Engineering and Instrumentation Branch, DRR, was awarded the Gold Medal of the Society of Magnetic Resonance in Medicine on Aug. 20.

He received the award for "pioneering contributions to magnetic resonance in biology and medicine" at the 1985 annual meeting of the society in London.

Dr. Hoult, the youngest recipient in the award's history, is chief of the Nuclear Magnetic Resonance (NMR) Imaging Group in BEIB.

Normal Volunteers Needed For Biological Clock Studies

Men and women are needed to participate as normal controls in studies of the biological clock and depression at the National Institutes of Health. Males between the ages of 29 and 35 and females between the ages of 50 and 60 are needed.

Four-Day Stay

Volunteers must be free of medical illnesses and currently taking no medications. They must have no history of psychiatric treatment and no family history of psychiatric illness or alcoholism.

The required hospital stay is 4 days, and subjects will be paid for their assistance. For further information, call Sue Martin or Liz Ashburn at (301) 496-6982, Monday through Friday, from 9 a.m. to 5 p.m.

"It is a sin to believe evil of others, but it is seldom a mistake."—H.L. Mencken
Medical Illustrator Marion Wilcox Retires; Cited for Innovative Medical Models

Marion A. Wilcox, Medical Illustration Section, Medical Arts and Photography Branch, DRS, retired Aug. 3 after almost 40 years of Government service. He spent 24 years at NIH, making three-dimensional medical models in a wide variety of materials for use by intramural investigators and clinicians.

"Marion was always innovative in his craft," said Howard Barmbr, chief of the Medical Illustration Section. "Right after he came to MAPB in 1961, he contributed much to our developing a technique for modeling patients' extremities in acrylic plastic. It was a big advance over the wax medium then in use."

Among the gifts Marion Wilcox received at his MAPB farewell was a portrait of him by Trudy Nicholson, a fellow member of the Medical Illustration Section.

Mr. Wilcox came to NIH from the Armed Forces Institute of Pathology, where he preserved tissue for use in the AFIP Medical Museum. His innovativeness was evident there as well. At the AFIP he published his first journal article, "A Method for Embodiment the Lens of the Eye in Plastic" (American Journal of Clinical Pathology, 1953).

At AFIP he also received a cash award for suggesting a new formula for coating museum specimens to prevent peeling and cracking, and he received a patent for a new method of embedding brain tissue in plastic without staining it, to differentiate gray matter from white.

At NIH, Mr. Wilcox's many projects included both body surface models and representations of internal organ tissue. Throughout his career, he continued to co-author technical articles on new methods in three-dimensional medical modeling.

Of the many models Mr. Wilcox prepared over the years, he says he obtained the most satisfaction from a recent project with Howard Barmbr: three specialized heart models to explain cardiac problems and corrective surgery to patients (NIH Record, Jan. 13, 1985). The three models, with removable parts, were made at the request of Dr. Charles L. McIntosh, NHLBI.

Says Mr. Barmbr: "I wish Marion had still been here when a Clinical Center nurse happened to see one of the heart models in my office and said, 'So this is where those were made! I can't tell you how helpful and reassuring they are to patients."

Mr. Wilcox's government service included 4 years in the Army, 1941-45.

Normal Volunteers 60 and Over Needed for NIMH Experiments

Healthy normal volunteers over 60 years of age without a history of psychiatric illness are needed for two NIMH studies. Volunteers should not be taking any medications.

One study requires a 2-hour screening session to evaluate suitability plus 3 full days for the experimental procedure itself. Normal volunteers will be compensated about $280 for participating in this study.

Two appointments are required for the second study. A 1- to 2-hour appointment is for screening. A second appointment for the experimental procedure will require 4 to 5 hours. This procedure involves an injection of radioactive 18 fluorodeoxy glucose, periodic blood sampling, an auditory attention task, and a PET scan. Compensation will be about $120 for the two sessions.

For further information call 496-4022.

DRG-Sponsored Workshop To Be Held Oct. 20-21

A workshop on "Molecular and Cellular Aspects of Reproduction" will be held at NIH, Oct. 20-21, from 7:30 a.m. to 6 p.m. in the Masur Auditorium, Bldg. 10.

Individuals interested in attending the workshop may contact Dr. Dharam S. Dhindsa, executive secretary, Reproductive Biology Study Section, DRG, at (301) 496-7318.

Jacqueline Waters, NHLBI, Completes Executive Prgm.

Jacqueline A. Waters, NHLBI, recently completed the Key Executive Program at American University and was granted a master's degree in public administration. The Key Executive Program is a highly competitive intensive 20-month course of part-time study for government managers approved last year by the Office of Personnel Management as an accredited substitute for the Senior Executive Service training program.

Ms. Waters

Ms. Waters was inducted into Phi Delta Gamma, an honorary fraternity, during her first year in the key program. She was also designated as representative (class agent) for her class, key IX, at the university.

Ms. Waters joined NIH in November 1973 as training officer, Division of Research Services, and subsequently handled a dual assignment as training officer and personnel management specialist before her selection as a supervisor in the OD Personnel Office.

Prior to her NIH tenure, Ms. Waters held several professional personnel positions with the Veterans Administration. She is a member of the American Society for Public Administration and the American Association for the Advancement of Science.

NINCDS Study Seeks Volunteers Who Have Had Severe Mumps

The NINCDS Neuroimmunology Branch is seeking NIH employees who have had an unusually severe or complicated mumps infection for studies investigating the relationship between mumps and genetic makeup, particularly HLA. Participants will be paid.

For more information please contact Dr. Andrew Goodman at (301) 496-1801.
Dr. Don C. Gibson, NIA associate director for planning and extramural affairs, retired Sept. 5, after 21 years of Federal service during which he played a major role in developing the extramural programs.

For the past 6 years, he has served as a focal point for policy and guidance on the review and management of the Institute's grants and contracts and all program planning and evaluation activities.

When Dr. Gibson joined the PHS Commissioned Corps and came to NIH in 1968, he first worked in the NICHD Office of Program Planning and Evaluation. He later served as a health scientist administrator in the Institute's Adult Development and Aging Branch, administering a program for the development of animal models for geriatric and gerontological research. It was then that he first became aware of the need for increased geriatric research.

"There were only a few grants on aging at that time, most of which were assigned to me."

Dr. Gibson initiated several NIA research programs, including the active and increasingly important animal models program which selected vertebrate models and other resources for the study of aging. Since 1976, he has been the Institute's extramural budget quaduple in size with a program of over 500 active research and training grants today.

A native of Athens, Ohio, Dr. Gibson attended Ohio State University where he received a doctorate in veterinary medicine in 1957. After opening a private practice in Portsmouth, Ohio, he was forced to abandon his practice because of allergic sensitivity to a number of common veterinary medications. He went on to pursue an MPH from the University of Michigan School of Public Health and became health commissioner for the Portsmouth city government until recruited by the U.S. Public Health Service in 1968.

Dr. Gibson is a member of numerous scientific organizations and has served on several NIH and interagency committees. He is a member of the College of Veterinary Preventive Medicine and Public Health, a fellow of the Gerontology Society of America, and a recipient of the PHS Merit and Commendation Medal.

After retirement, Dr. Gibson plans to take a month off for a long overdue vacation before returning to his hometown of Athens with his wife, Bertha. He intends to continue working as a part-time consultant in developing and planning biomedical research. He will also assume management of a family truck and car business in Athens.

At a recent farewell party, Dr. Gibson was presented the NIA medallion by the Institute Director Dr. T. Franklin Williams. This bronze medal honors those whose special contributions have helped establish the research direction and priorities of the Institute.

Remarking on the event, Dr. Williams said, "We are going to miss Don a great deal; he has been our effective conscience and monitor in our extramural activities and has assured timely and supportive responses to applicants and grantees."

Dr. Gibson

Enzyme May Protect Cardiac Tissue Damage Following Heart Attack

Our bodies use enzymes to initiate and speed up the many chemical reactions we rely on for life. Now scientists may be able to use one particular type of enzyme to protect cardiac tissue in heart attack patients.

Those enzymes are "free radical" scavengers. They "eat up" the highly reactive molecules that have been implicated as destructive agents in a number of organs, including the heart.

Dr. Karen P. Burton of the University of Texas Health Science Center at Dallas has recently demonstrated that one of these enzymes—superoxide dismutase—preserves heart structure and function following ischemia. Typical of heart attacks, ischemia is a condition in which blood flow (hence oxygen supply) to the heart is blocked.

Dr. Burton reported on her heart research in the May, 1985 issue of the American Journal of Physiology, published by The American Physiological Society. Dr. Burton is a member of that scientific organization, which is part of the Federation of American Societies for Experimental Biology. Dr. Burton's study was funded by the National Heart, Lung and Blood Institute and the Texas affiliate of the American Heart Association.

Scientists believe that much of the tissue damage resulting from sudden ischemia followed by reflow (blood reflow after deprivation can itself damage heart tissue) is caused by the oxygen-derived free radicals known as superoxide and hydroxyl radical.

Ordinarily, the body can handle free radicals with several different enzyme systems, including peroxidase, catalases, and superoxide dismutases. But these enzymes can be damaged by ischemia, allowing the toxic free radicals to function unchecked, especially when blood flow to the heart resumes.

Dr. Burton has been evaluating the ability of superoxide dismutase to protect heart tissue from the damaging effects of an interrupted blood supply. Working with an isolated heart system, she showed that treatment with the enzyme protects the heart's ability to contract and preserves heart cell structure following a period of blood deprivation and then reflow.

The Texas researcher commented that her results support the idea that free radicals are involved in the damage resulting from ischemia and reflow. And it raises the possibility that superoxide dismutase and other free radical scavengers may be useful for treating heart attack patients, preventing irreversible heart cell damage.—FASEB Feature Service
Obstetricians, Attorneys, Insurers, Consumers Confer on Malpractice Crisis at NIH Forum

Increased education for consumers, health care providers and members of the judicial system, and immediate government action to make malpractice insurance available to all practitioners who provide maternal health care were among recommendations urged at a forum on malpractice and obstetrics held recently at the National Institutes of Health.

Sponsored by the International Childbirth Education Association, the National Institute of Child Health and Human Development and the Division of Maternal and Child Health in the Department of Health and Human Services, the forum brought together representatives from some 50 organizations. These included physicians, midwives and other health care providers, legal professionals, insurers, and consumers of health care.

The forum was called to develop ideas and recommendations that can ease the current malpractice insurance crisis.

Keynote speaker Dr. Roger O. Egeberg, Senior Scholar in Residence at the National Academy of Sciences and former DHHS Assistant Secretary for Health, said the malpractice insurance crisis has caused the withdrawal of malpractice insurance for midwives and malpractice premiums of up to $80,000 a year for obstetricians in some areas, thereby reducing the availability of good pregnancy care for women at a time when the Nation is devoting increased efforts to reducing infant mortality.

Dr. Duane Alexander, Acting Director of the NICHD, voiced another concern. The current crisis, he said, has precipitated a "constraint on research imposed by a system that becomes driven primarily by concerns over lawsuits."

He said that this has limited NICHD's research program in two ways: in its ability to test new drugs and devices related to pregnancy because of the inability of investigators to get liability insurance for testing at any price; and in research on alternative obstetric practices.

Forum participants took up seven major issues and gave specific recommendations for action on each issue. Six of the seven questions concerned how maternal health care providers, the public, the government and its agencies, medical malpractice underwriters, third-party insurers, and the legal system can prevent child-birth related injury and reduce the adverse effects of malpractice claims. The seventh issue was: "What actions can reduce the influence of provider malpractice fears on the utilization of obstetrical procedures, and on the availability of consumer choices in childbirth?"

Workgroups made up of representatives of various interests were appointed to investigate each of these questions.

Several workgroups stressed the importance of good communication between the practitioner and the patient. This communication is important not only during care, but is probably even more important after a bad pregnancy outcome, they indicated. Speakers emphasized that maternal health care providers need to stress patient education, to encourage shared decisionmaking between themselves and their patients, to learn to listen better to their patients, and to impress upon their patients their own responsibility to follow nutrition guidelines and other health habits during pregnancy.

A major problem identified by several workgroups was that pregnant women and their families often have unrealistic expectations about the outcome of their pregnancy. Many women think that as long as they eat right, don't smoke and practice all of the right health habits, they are "guaranteed" to have a healthy baby. Then if they have a less than perfect baby, they feel the health care provider is at fault. This attitude, the workgroup indicated, makes it much more likely that disappointed parents will seek compensation for perceived "wrongdoing."

There was general agreement that this attitude could best be overcome by better consumer education, improved communication between patient and health care provider, and increased education for lawyers and judges on realistic expectations regarding pregnancy and birth.

Other recommendations offered at the meeting included:

- Federal reinsurance of malpractice insurance;
- Medicaid entitlement without a means test to those with catastrophic disability whether or not the disability resulted from malpractice;
- Stronger mechanisms to assure the competence of health care providers, including tougher licensing requirements and establishment of a national clearinghouse so that consumers can get information about past performance of individual practitioners;
- Stronger provisions for informed consent;
- Better methods to identify and effectively discipline incompetent health care providers;
- A shorter statute of limitations for infant injury claims;
- Research to provide a scientific basis for the establishment of guidelines for uniform "standards of care."

Workgroups made up of representatives of the establishment of guidelines for uniform "standards of care."

New White Blood Cells May Reduce Collagen Formation in Scleroderma

Progressive systemic sclerosis (PSS), a form of scleroderma, is a rare connective tissue disease of unknown cause. In this disease, connective tissue fibers proliferate due to excessive production of collagen. Accumulation of excess collagen and its fibers in the skin and internal organs, such as the esophagus, intestines, lungs, heart, and kidneys, disrupts their function and can eventually result in death.

Approximately 300,000 people in the U.S. suffer from systemic and localized scleroderma. Since the mechanism underlying scleroderma is unknown, there is as yet no means of preventing or effectively treating this disease. However, comparisons of cultured connective tissue cells from scleroderma patients and normal subjects, conducted recently by NIADDK grantee Dr. Sergio A. Jimenez and collaborators at the University of Pennsylvania Schools of Medicine and Dentistry, provide a ray of hope for scleroderma sufferers.

Dr. Jimenez and coworkers separated a protein product, designated CSIF (collagen synthesis inhibitory factor), from white blood cells (T lymphocytes). The researchers cultured connective tissue cells from the skin of normal subjects and from scleroderma patients in media containing CSIF. They then compared the rates of collagen production achieved with CSIF from quiescent lymphocytes, and with CSIF from lymphocytes that had been stimulated by a substance called PHA. Usually, PHA causes an immunologic reaction in which white blood cells increase in number.

As anticipated, all cells from scleroderma patients produced over 160 percent more collagen than the normal cells. Significantly, purified liquid from PHA-stimulated white blood cells reduced collagen production by 95 percent.

Unpurified liquid left over from the CSIF separation procedure modestly inhibited collagen production by scleroderma cells. Partially purified liquid that had been separated from unstimulated lymphocytes caused up to 64 percent inhibition. The assumption is that inhibition of collagen production was due to CSIF during the purification procedure.

The findings of this study show that CSIF derived from white blood cells strongly inhibits the collagen production of isolated connective tissue cells from scleroderma patients. Although these findings have not been duplicated in humans, they point to the possibility of defective white blood cell products in scleroderma patients.

The findings were reported in the May 1985 issue of the journal Arthritis and Rheumatism.
Mrs. Fannie Alexander, Affirmative Action Activist, Retires From NINCDS' After 40 Years Gov't. Service

Fannie Alexander, a pioneer in the development of the first National Institute of Neurological and Communicative Disorders and Stroke affirmative action plan for equal employment opportunity, retired from her post as a technical information specialist with the Institute on Aug. 30, after more than 40 years of government service.

Mrs. Alexander was instrumental in organizing the NINCDS Equal Employment Opportunity Advisory Committee nearly 15 years ago. She devoted considerable talent and energy to the committee, serving one 2-year term as vice chairperson.

Mrs. Alexander helped foster EEO sensitivity throughout the Institute. In 1980, she was a major organizer of an orientation and training program that sought to increase awareness of EEO issues among the Institute’s supervisors and their staffs. In the same year, she planned and chaired the NINCDS All-Employees’ Meeting, an annual event that provides a forum for discussion among top management and employees of the Institute’s many offices.

For her outstanding efforts in promoting the principles of EEO programs, Mrs. Alexander received the 1985 Harvey J. Bullock Jr. Award, which honors equal opportunity achievements made by employees who work outside the EEO field.

Through the years, the NINCDS EEO Advisory Committee has also promoted job advancement for women and minorities. Mrs. Alexander’s own career advanced through opportunities created by EEO initiatives. In 1972, she entered the STRIDE program: through it she earned a B.A. degree in psychology from American University and was appointed to her first job in a professional series.

Joined NINCDS in 1961

An Atlanta native, Mrs. Alexander began her government career as a clerk at the Pentagon during World War II. She came to the NINCDS in 1961 as a medical coder and in 1970 became an assistant statistical supervisor.

In her first job obtained through her STRIDE training, Mrs. Alexander worked with NINCDS psychologists on the Institute’s Collaborative Perinatal Project, a study that determined factors influencing the course of pregnancy and the well-being of newborns. She analyzed data and assisted in the preparation of scientific reports and articles about the project.

In 1980, Mrs. Alexander moved to what is now the Institute’s Office of Planning and Analysis, becoming a technical information specialist in the Management Information Data

OSM to Offer Stop Smoking Classes in Two Sections

The Employee Counseling Services of the Occupational Medical Service will present another “Stop Smoking” Program beginning Oct. 23. Designed to help people stop smoking gradually, the program lasts for 6 weeks and deals with the physical and emotional issues of quitting.

It will take place Wednesdays in Bldg. 31, Room B2B57 from noon to 1 p.m. To register, please call Morris Schapiro, 496-3164.

Cele Ganley, OMS nurse at Westwood Bldg., will also present a “Stop Smoking” program at Westwood. For information, please call 496-7638.

The new definition of psychiatry is the care of id by the odd.—Anonymous

‘Battle of the Bulge’ Begins Oct. 15 in Landow and Blair

Kickoff for the first NIH Weight Loss Competition is set for Oct. 15.

For 12 weeks, NCI employees in the Blair Bldg. will compete against those of NICHD in the Landow Bldg. in the “battle of the bulge.” This approach to weight loss uses the spirit of “competition and cooperation” among employees to enhance motivation and provide additional incentive to win the battle against overweight and obesity.

Over the past two weeks, teams from within each Institute have been actively recruiting participants and setting their individual team strategy. Each team will attempt to achieve the greatest percentage of its goal defined as the difference between desirable weight and actual weight of the team’s members.

Small contribution

All competitors will be asked to make a small contribution toward the pool of prize money, and a copy of a behavior modification manual for weight loss which includes information on self-monitoring, nutrition, exercise, altering the eating environment and eating styles.

Participants will be given specific instructions on how to lose weight, so as to guarantee appropriate weight loss with good health in mind.

Each week, the participants will be weighed on the same scales and a scorecard will keep each team informed of the opposition’s progress at achieving its goal weight.

Prizes will be awarded to the winning team by R&W. Any interested employee located in these two NIH buildings is urged to join in the team spirit and compete in the first NIH pilot battle against the bulges. For additional information, contact Ed Malbach, NCI, 427-8656 or Joyce Pilcher, NICHD, 496-9583.

Collective Sponsors

The NIH competition is being held with the assistance and cooperation of NCI and NICHD personnel, members of the Nutrition Coordinating Committee’s Subcommittee on Nutrition Education, R&W, Occupational Medical Service personnel, and Dr. Kelly Brownell, associate professor, Department of Psychiatry, University of Pennsylvania School of Medicine, who has conducted this type of weight loss competition in various work situations.

Had I been present at the creation I would have given some useful hints for the better ordering of the universe.—Alfonso the Learned.
RADIO HAMs

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their time and skills.

Spanish-speaking ham Jamie Sanchez drove from Poolesville, Md. and Alan Noznesky came from Washington, D.C. to help out "for a short time" and both stayed for more than 8 hours of operating.

Five days after the disaster, inquiries were being accepted only 3 at a time and replies required almost 24 hours for a response. "It looks like we'll be busy for quite a while," said one club member.

Club meetings are held the first Thursday of each month, at noon, on the 3rd floor of Bldg. 11. Visitors and prospective ham operators are welcome.

Call Larry Martin at 496-3401 or Tom Vegella at 496-2346 for further information. ⬜

(Writer Hook, a research microbiologist at NIDR and an NIH 'ham' operator, penned this account of the club's emergency activities at the Record's request.)

‘Insulin’ Found in Organisms Without a Pancreas; Research May Lead to Redefinition of Hormone

Hormones have been traditionally defined as chemical compounds formed by various body glands that are absorbed into the blood and influence the growth, development and function of some other part of the body.

The hormone insulin was classically considered, in this sense, to be a hormone secreted only by the pancreas. It was widely known for its role in carbohydrate and protein metabolism; particularly for its role in maintaining normal blood sugar levels through its effects on fat, muscle and liver cells.

Over the years researchers have broadened the definition of hormones to include substances not exclusively produced by glands, but having traditional hormone-like actions.

Investigators have now identified insulin or a substance very similar to insulin in cells of organisms that have no pancreas and are from less complex level of the biological kingdom. These include primitive vertebrates, animals with a spine or backbone; complex invertebrates, organisms without spine or backbone such as the worm; and even in certain insects, protozoa and bacteria.

Furthermore, investigators have identified a broader spectrum of insulin action including effects of the hormone on fetal growth, cell differentiation and gene transcription.

For example, scientists at the National Institute of Arthritis, Diabetes, and Digestive and Kidney Diseases—Drs. Flora de Pablo, Luis Bassas and Jesse Roth—have examined the role of insulin in the early development of the chick embryo.

They hoped to learn if insulin plays a role in the developing chick and, in turn, perhaps gain clues to the role insulin plays in fetal development during pregnancy in diabetic women. Diabetic women have an increased risk of carrying babies with developmental abnormalities.

The investigators discovered that insulin was present even in unfertilized eggs and detectable in chick embryos at 2–3 days development. Insulin receptors (necessary for a hormone to exert its specific action) were detected shortly after the hormone, within 3–4 days.

Detected even earlier, at day 2, were receptors for insulin-like growth factors. These receptors may also be important in mediating insulin action on embryonic growth.

When the chick embryos were treated with low doses of insulin, development was accelerated. Conversely, when the chick embryo's naturally occurring insulin was neutralized by the injection of anti-insulin antibodies, more chicks died. Embryos that survived the initial injection of anti-insulin antibodies showed retardation in growth and biochemical development.

These cumulative pieces of information suggest that insulin in chick embryos probably plays a developmentally significant role at early stages, perhaps regulating growth and differentiation.

Other investigators in the future may use this information to help treat the pregnant diabetic and her developing baby, preventing some of the problems commonly faced by this group.

Another NIADDK researcher, Dr. Yale Topper, chief, Section of Developmental Biology, and Drs. P. Chomczynski (NIADDK) and P. Qasba (NCI) discovered an effect of insulin on gene transcription, a process that takes place in the cell nucleus. Previously, insulin effects on biological events in the cytoplasm (all of a cell's protoplasm except the nucleus) were widely recognized.

Genes, elements of DNA, are located in the cell nucleus and determine what a cell is or will be. Gene transcription is an intermediate step between the genetic code of the gene and the final product that is produced in the cell cytoplasm. The DNA "message" is copied (transcribed) from the gene to RNA, and the RNA functions as a messenger carrying genetic information from the cell nucleus to the cell cytoplasm where it directs the synthesis of proteins. In this way, selective activation of genes leads to the production of proteins that are characteristic of particular cells or tissues.

Drs. Topper and Chomczynski, together with NIADDK scientists Drs. F. Bolander Jr., J. Kulski, K. Nicholas and L. Sankaran observed that insulin, together with two other hormones (glucocorticoid and prolactin), is required for the transcription of a casein (a milk protein) RNA, in a culture of certain mammary (milk-secreting) cells.

This novel effect of insulin on the nucleus of the cell opens a new area of investigation. Parallel discoveries by other investigators have shown that insulin, together with estrogen, is necessary for the transcription of the ovalbumin (egg white protein) gene in the oviduct, and that insulin inhibits transcription of a certain enzyme gene in the liver.

The search is on for other transcriptional effects of insulin and for a more complete understanding of the regulation of the transcription process.

Scientific curiosity and technological advances have changed the concept of what a hormone is and in particular, have broadened the knowledge of insulin action.—Linda Stalvey

Mike Thomas updates the log book on calls in the Operations Center. Photos by Marilyn Berman
VIVA Volunteers Greet Foreign Scientists And Families; Make Their Welcome Warm

With her welcoming torch held high, "Lady Liberty of New York City" has a human counterpart at the NIH: a group of volunteers who work to make the arrival of foreign scientists a happy experience.

The group calls itself VIVA. It's members are people dedicated to helping new arrivals feel more comfortable in a strange country. Members of the group greet visiting program participants and their families at the airport and drive them to the NIH.

They also arrange social events for the new arrivals and are available to help them settle into their new environment. They also operate a telephone assistance program.

VIVA's coordinator, Mrs. Simone Prosser, says: "It's our aim to provide a backup service for Visiting Program sponsors who are unable to meet their visiting scientists at the airport. We feel it is very important for our visitors to receive a warm welcome.

For the escorts, the program offers a special way to meet and talk with people from many parts of the world. Since many of the volunteers are themselves from foreign countries, they may often be greeting visitors from their own country. The social occasions arranged by VIVA members also offer opportunities to exchange ideas and customs and for the new arrivals to gain useful information about NIH, the community and the United States.

The telephone assistance program provides answers to basic, important questions such as school enrollment, getting a driver's license and other such concerns.

For more details about VIVA or if you want to participate in this program, call Mrs. Prosser at 496-7357, Monday, Tuesday, Thursday and Friday from 12:30 to 4:30 p.m. The office is located in the International Room, Bldg. 16A. New volunteers are always welcome.

Four of the VIVA volunteers, who greet foreign scientists and families on arrival, chat about plans. They are (1 to r): Jane Klinken, Avita Bickel, Simone Prosser, coordinator; and Liz Harrington.

Endocrine Society Honors Graff

Morris M. Graff, a former staff member of DRG, recently received a plaque of appreciation from the Endocrine Society.

Mr. Graff retired from DRG in February 1985 after 42 years of Federal service. He received the plaque in appreciation for 26 years of dedicated service in the advancement of endocrinology as executive secretary of the Endocrinology Study Section, DRG. Included along with the plaque were two "around the world" airline tickets.

Mr. Graff was honored previously by the Endocrine Society in 1974 as a co-awardee for the Ayerst Distinguished Service Award.
Risk Factors for Diabetic Related Eye Diseases
Discussed by Epidemiologists at NEI Symposium

Risk factors for diabetic retinopathy—factors which may predict which persons with diabetes will develop eye impairment—were reported at a recent Symposium on Eye Disease Epidemiology held by the National Eye Institute.

Dr. Charles Garcia cited four possible factors conducing to diabetic eye problems in a population he studied in Starr County, Texas.

The significant risk factors in this group, which has a rate of diabetic retinopathy 10 times as high as the U.S. average, were:

- Age at onset of the disease (the later the disease developed, the better the chance for retaining healthy eyesight); blood sugar level and glycosylated (sugar particles) hemoglobin level.

Dr. Garcia concluded that poor control of blood sugar levels may well be a contributing factor to the high prevalence of diabetic retinopathy in the Texas county group he studied.

More than a dozen epidemiologists reported at the symposium on studies of large groups of people at risk for developing a specific eye disease.

Difficulties encountered in conducting large-population epidemiological studies were discussed in a report on the Visual Acuity (sharpness of sight) Impairment Survey (VAIS) pilot study. For example, the investigators concluded that people may not be motivated to participate in such studies, even when free vision screening is offered, if they already receive care through an established health care system.

VAIS was carried out in three U.S. metropolitan areas to determine the feasibility of conducting a larger survey of visual acuity impairment and its causes.

Dr. Richard Mowery of the NEI Biometry and Epidemiology Program, and his colleagues at the National Center for Health Statistics and the Census Bureau, encountered a low rate of participation in VAIS vision testing among people living in areas where vision testing and other health care was readily available. They concluded that a large-scale study of this group was not feasible.

Changes in methodology and study design were suggested that might improve the chances for success in subsequent studies.

In another session, the advantages and disadvantages of using microcomputers for data collection and management under field-study conditions was described by Steven Singer, a data processing expert.

In a community-based trial on use of vitamin A to prevent blindness in children (acute vitamin A deficiency resulting in corneal destruction) in Aceh, Indonesia, Mr. Singer and his colleagues asked data collectors in the field to record information by hand on standardized forms. Then these were sent to Jakarta where data were put on diskettes. The diskettes were subsequently sent back to the U.S. for data processing and analysis.

Mr. Singer explained: “We decided not to take microcomputers into the villages to record data. Residents seemed to have a hard time trusting someone who was typing what they said directly into a computer. When a data collector used paper and pencil to take down answers, he was perceived as more trustworthy and easier to talk to.”

In summing up the impact of the symposium, Dr. Daniel Seigel, acting director of NEI’s Biometry and Epidemiology Program said, “During these three days we have demonstrated how the work of statisticians and epidemiologists becomes relevant to our clinical colleagues. We have created a forum where established investigators as well as young investigators have had an opportunity to present their work. At the next symposium, we will undoubtedly have reports of research that make use of some of the more sophisticated analytical techniques that were presented here.”

Abstracts of symposium presentations can be requested from Dr. Richard Mowery, Biometry and Epidemiology Program, National Eye Institute, Bldg. 31, Rm. 6A24, Bethesda, MD. 20892.

AWARD

(Continued from Page 1)

neurochemistry, Zoology Institute of the J.W. Goethe University, Frankfurt am Main. Their joint studies will involve the neurochemistry of acetylcholine, the molecular and morphologic aspects of exocytosis and the recovery and recycling of vesicles.

Besides the von Humboldt Award, Dr. Kuhn has also received the Vector Laboratories Outstanding Young Investigator Award in Neurochemistry, among others. He has published extensively in his field.

The Alexander von Humboldt Foundation was established in 1961, in memory of the leading natural scientist in Europe in his time.

The Foundation provides fellowships to young scholars with an academic equivalent of a doctorate, regardless of race, sex, religion or ideology, to carry out specific research projects at German institutions of their choice. As many as 480 new fellowships are available each year to scholars between the ages of 25 and 40 years from all nations but Germany.

Awardees are selected by a committee of approximately 100 prominent German scholars from virtually every field. Competition for the fellowships is worldwide, and selection is made only on the basis of academic qualification. Scholars selected are invited to work in Germany for up to 12 months.