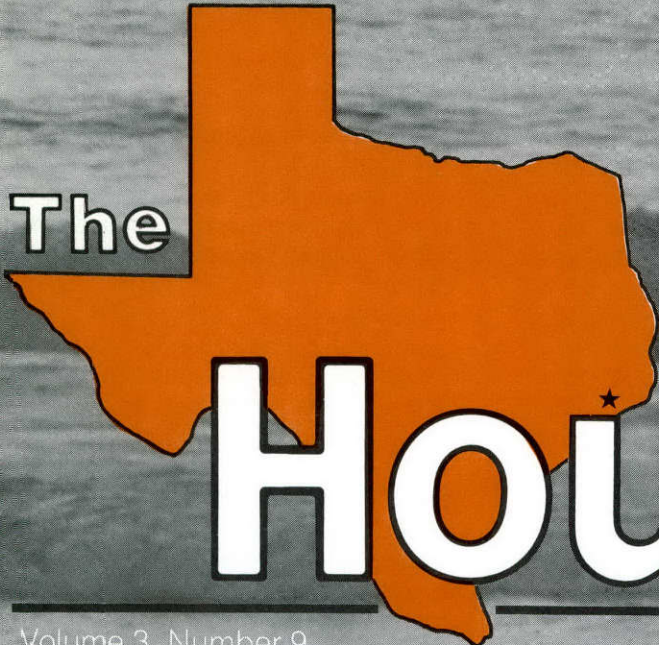


TxD  
Z UH3256 H918 3/9

TEXAS STATE DOCUMENTS  
COLLECTION

NON-CIRCULATING



The

# Houtexan

The University of Texas  
Health Science Center  
at Houston

Volume 3, Number 9

March 15, 1982



NON-CIRCULATING  
NTSU LIBRARY



# 'Clean' water deep underground may be home for viruses

By Diane Broberg

Viruses may threaten the purity of our drinking water. We now know that they can survive even longer than bacteria can in our underground water sources.

It is increasingly common to find viruses in groundwater. They can seep down through the soil under septic tanks and sewage treatment sites. In a study reported in Atlanta at the annual meeting of the American Society for Microbiology, the viruses tested were those most typically found in sewage water. The scientists in charge of the study were Dr. Bruce Keswick of the Medical School's Program in Infectious Diseases and Clinical Microbiology and Dr. Charles P. Gerba of The University of Arizona at Tucson.

They suspended a container of viruses and bacteria in a rural domestic well and continually flushed well water through it, taking care not to contaminate the well. Many viruses were still alive when the study ended, and

Keswick said he believes they would have lived much longer than the 24-day study.

At present, bacterial counts are measured at sewage treatment plants before liquid sewage is released as "safe," but viruses are not measured. "There is a need to find a practical method for monitoring the water for viruses," Keswick said.

Such treated wastewater is sometimes recycled for irrigation and for animal and human consumption. It could retain viruses.

These viruses can cause a variety of diseases, including diarrhea and poliomyelitis. Ranked in order, beginning with the longest survivors in the study, they are: poliovirus type 1, coxsackie-B3 virus, echovirus-1, SA-11 rotavirus and f2 bacteriophage. The bacteria tested in the well died before the viruses.

Once groundwater is contaminated, it is hard to clean up, Keswick said. "Chlorination doesn't always assure safety," he added.

The use of groundwater for drinking purposes is increasing in this country. It is expected to make up one-third of our drinking water by the year 2000, and has always been thought of as clean.

In areas where wells tap the groundwater, nearby septic tanks should be located downhill of the wells, or in a position where sewage contents cannot flow to the water supply if the well casing is defective or during high rainfall periods, Keswick said.

The soil type contributes to viral seepage. Clay is less porous than limestone, for example. A fault in the earth acts like a pipe to transport the viruses to the groundwater, he said.

In June 1980, 80 percent of the residents of a town in Texas became ill when its municipal well was contaminated by sewage in this way, Keswick said. The seepage spot was never pinpointed because the town is in a limestone area and a fault zone.



**Houtexan**

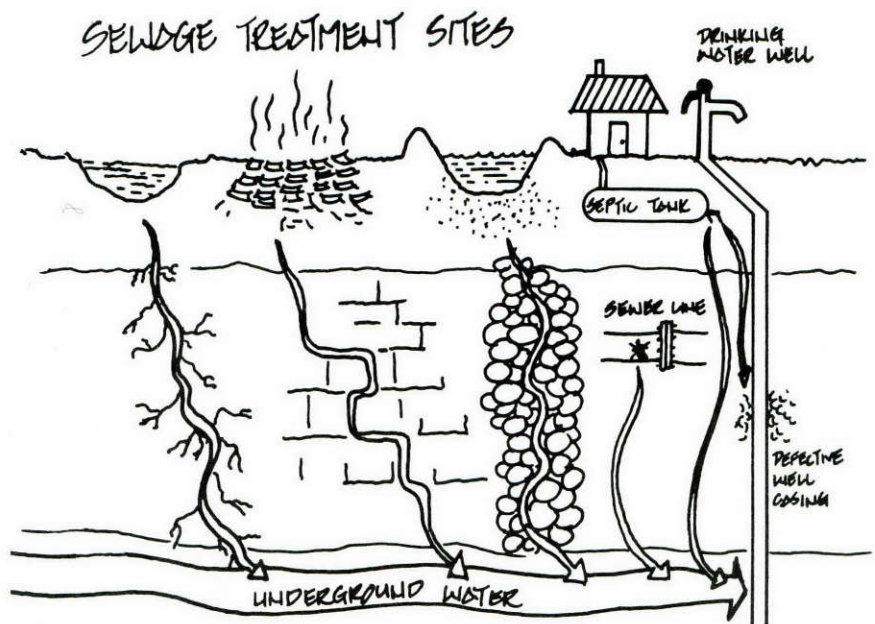
is published semimonthly by the Office of Public Affairs, The University of Texas Health Science Center at Houston. **Roger J. Bulger**, M.D., president. **Joe Sigler**, executive director of public affairs.

Editor: **Ina Fried**  
Associate Director of Public Affairs

Assistant Editor: **Diane Broberg**

Staff: **Gene Allen**, TV/radio media coordinator; **Tish Figures**, secretary; **Henry Fung**, design and production; **Kenna Giffin**, writer; **Cathy Gubin**, photographer; **Betty Holmes**, writer; **Cynthia Miller**, artist/photographer; **David Moore**, writer; **Belinda Parker**, business and distribution.

Office of Public Affairs  
The University of Texas  
Health Science Center at Houston  
Box 20036  
Houston, Texas 77025  
1100 Holcombe Blvd., Room 1117  
(713) 792-4266



**DEEP UNDERGROUND DOESN'T NECESSARILY MEAN CLEAN** — A researcher here has found that viruses from sewage treatment sites can seep down through the soil and enter underground water sources, where they can live for some time. The soil type in the area can speed up or slow down the process: clay is less porous than limestone, for example.

Cover: "Shaping up for spring," by Cathy Gubin.



# WIC tells what to eat and why for healthy children

By Kenna Giffin

Dalia Lima, School of Public Health graduate in nutrition and Registered Dietitian, uses a bag of magic tricks to demonstrate how “garbage in, garbage out” relates to good nutrition.

She puts in photos of junk food, swishes them around and pulls out pictures of sickly-looking children. Then she puts in photos of foods belonging to each of the basic four food groups, and out comes a photo of a healthy-looking child.

She hopes the magic show impresses her audience of women and children participating in the WIC (Women, Infants and Children) Program.

The program has two parts, she explained. The first includes giving low-income women and children who demonstrate nutritional need food coupons to use for specific food supplements: formula, cereal and juice for infants; milk, eggs, cheese, cereal, fruit juice, peanut butter and dried beans and peas for children under 5 and for women who are pregnant or breastfeeding.

The second aspect of WIC is nutrition education.

The recipients must attend nutrition classes every three months to receive their food cards.

Lima develops the nutrition education materials used in the University of Texas WIC clinics. The materials are printed in Spanish, English, Cambodian, Lao and Vietnamese.

She finds it challenging to motivate her clients to improve their eating habits, and relies heavily on imaginative presentations to reach the recipients.

“They are from low-income backgrounds,” she said, “and most have low education levels, too. That’s why the nutrition education is required.”

Lima, a pharmacist in her native Cuba, also counsels each client individually. The women are told about basic nutrition, the advantages of breastfeeding and solutions to problems often encountered with children as they go through various stages of growing and eating.

If a woman decides to feed her

baby with formula, the baby becomes a client, and aid is provided for buying formula for six months, the dietitian said. Then, the child might remain a client until age 5 if the child is considered a “high-risk” child — that is, the child has nutritional deficiencies. The child is examined every six months by a physician and dropped from the program when health permits or the maximum age is reached. Doctors from the UT Department of Pediatrics do many of the examinations for the main clinics in the Hermann Professional Building and San Jose Clinic.

She helps the children’s mothers understand what foods are important and why, and that children don’t eat the same way all through their lives. For example, after a child is 18 months old, the child tends to eat less because the rate of growth slows somewhat. Mothers often worry because their children quit eating as well as they did as babies, and start giving the children junk foods to encourage eating. Instead, they should continue encouraging the children to eat nutritional food and not worry if the children eat less, Lima said.

The dietitian tries to reach her clients by using examples and language they can understand. In her lecture on fruits and vegetables, she acknowledged that fruits seem to be expensive. Yet, she pointed out, “you pay 45 cents for a can of soda water. You can buy two or three bananas for that 45 cents.”

The WIC program is an on-going program for certain people throughout the year, but the public will have special opportunities to learn about nutrition during March. The month has been declared National Nutrition Month by the American Dietetic Association, according to Janet Macheledt, director of the WIC program and chairman of community nutrition for the South Texas Dietetic Association.

A nutrition fair was held at Sharpstown shopping center, where people could be weighed, measured and counseled by a dietitian. Newspapers, television and radio have featured nutrition information for the public throughout the month and three billboards in the area have been promoting the topic.



Cathy Gubin

A MUPPET PUPPET helps teach children and adults about nutrition in the WIC clinics. Dalia Lima operates the puppet and counsels clients on how to eat better and to plan healthier meals for their families. Clients must attend nutrition classes to continue receiving WIC food coupons.



# Nurse professors' triage system helps create order from chaos

By Kenna Giffin

When it comes to designing emergency care procedures and departments for hospitals, June Thompson and Joyce Dains, assistant professors in the School of Nursing, can honestly say they wrote the book.

They are anxiously awaiting the appearance "any day now" of "Comprehensive Triage: A Manual for Development and Implementation of a Nursing Care System" published by Reston Publishing Company.

Their book has two goals: the first, to help hospital and emergency care personnel to analyze their own emergency care systems; second, to develop a logical, efficient system for triage.

Triage, Dains explained, comes from the French verb "to sort." In medical arenas, triage means "seeing the right people at the right place for the right thing at the right time by the right care providers."

In the book, Thompson and Dains provide all the information hospitals need to set up a triage system: how to assess needs, whom to contact, what to include, what staff is needed, what the education of the staff should be and how to establish clinical protocols to standardize triage evaluations.

Most hospital emergency departments have a sorting system, Dains said, but most are haphazard at best. Patients sometimes wait for hours without seeing a doctor or a nurse.

The comprehensive triage system sorts people according to how acutely ill or injured they are, she said. The patients are then reassessed periodically by a triage nurse. More seriously ill or injured patients might be seen every 15 minutes; those who have less serious ailments would be seen at least once every hour until a physician or other care provider could examine them.

Some laboratory tests and X-rays could be ordered sooner in this system, thus giving the physician preliminary data to help in making a diagnosis as well as making the patient's waiting time shorter, Thompson said.

The major payoffs from the system include moving patients through the

emergency care steps more quickly and creating more satisfied customers, Dains added.

Thompson said the system described in the book was initiated at Columbus (Ohio) Children's Hospital in 1978. By 1979 the concepts were expanded to include adult emergency care, with some alterations. After working with the system there, she began receiving calls from other people wanting to know about it. That experience in consulting encouraged her to consider writing the book.

The nurses have used the material in teaching in the nursing school's master's degree program in emergency nursing. The nursing school here is one of three in the country having an emergency care emphasis at the master's level. The UT program is the most comprehensive, Thompson added, while the two other programs are spe-



Joyce Dains

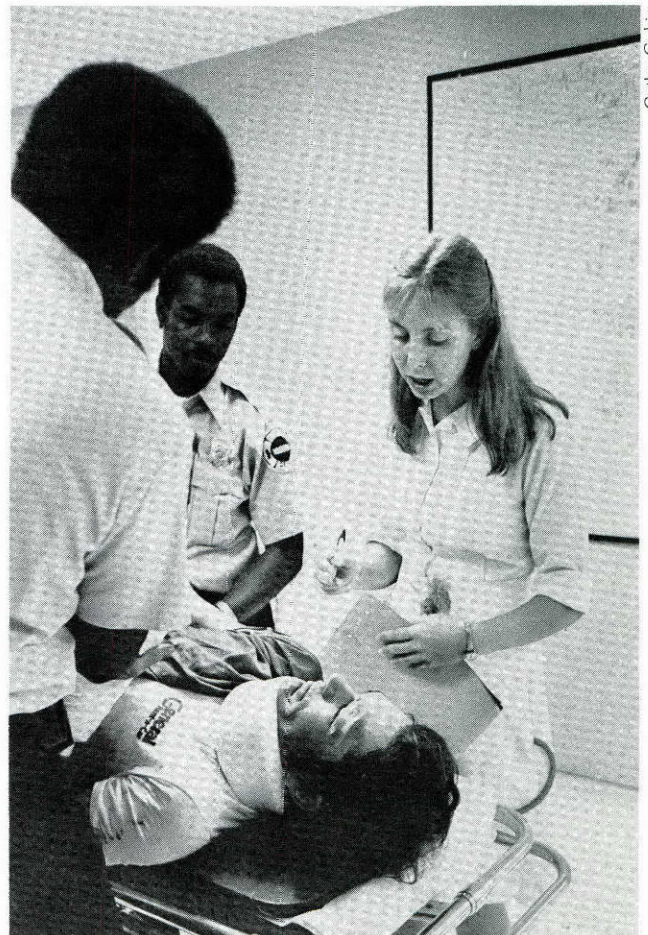
cialized. There are 25 students from all over the country in the UT program.

Since 1954, use of emergency departments has grown 760 percent, Dains, who also worked at Columbus Children's Hospital, pointed out.

"So many people use it as a primary care system, the problem is how to get this group of people, who are not severely ill, seen by the appropriate care provider," she said.

That's precisely where their system helps most.

*PUTTING THEORY INTO ACTION, Patrice S. Reeves practices triage in the emergency room of Hermann Hospital. Triage is simply a system for sorting emergency patients according to their conditions. Two School of Nursing faculty members have written a book on setting up a triage system.*



Cathy Gubin





Cathy Gubin

June Thompson

"It's not meant for the severely ill or injured people," Thompson said. "It's for the other 85 percent of the people."

Critics of the emergency care triage system say it will slow things down. On the contrary, Dains said, triage can be done in two to five minutes per patient. If a patient can be cared for in another area, a walk-in clinic for example, then the patient can be directed there for faster care.

At Columbus, Thompson added, personnel did time-flow studies before and after the triage system went into use.

"Consistently, we reduced the waiting time of people really needing to be seen," she said.

Thompson is past president of the Emergency Department Nurses Association, the national organization for emergency care nursing. That position and the requests for her advice as a consultant have given her chances to see a variety of emergency care systems and the extent of the care problem.

"It's a national problem," she emphasized. "Emergency departments are collectively disorganized and depersonalizing. This triage system, which systematically divides and sorts the patients requiring services, is a method to provide initial and personalized patient assessment. Equally as important, it is a method to develop order out of chaos."

# APPOINTMENTS

New Health Science Center appointments recently approved by the UT System include the following:

## School of Allied Health Sciences

**Stephanie Ann Hamilton**, instructor of cytotechnology education; from cytotechnologist, UT Medical Branch, Galveston; B.A. in biology, Texas A & M University; certificate in cytotechnology, SAHS; completing M.Ed., University of Houston.

**Elizabeth S. Manis**, visiting instructor of community nutrition dietetics; from nutritionist, The Houstonian Preventive Medicine Center; B.S. in home economics, UT-Austin, 1968; registered dietitian.

**Consuelo M. Vollmer**, faculty associate in biomedical communications; from graduate assistant, SAHS; B.A. in sciences, Colegio Mayor de Nuestra Senora del Rosario, Bogota, Colombia, 1979; certificate in biomedical communications, SAHS, 1981; completing master's degree, Graduate School of Biomedical Sciences.

## Dental Branch

**Dr. John E. Savoy II**, clinical assistant professor of restorative dentistry-fixed multiple restorations; from private practice; B.S., Lamar University, 1976; D.D.S., UTDB, 1980.

**Dr. David W. Shelton**, professor of surgery; from professor of oral surgery, School of Dentistry, and professor of surgery, School of Medicine, Medical College of Georgia; B.S., Utah State University, 1955; D.M.D., Washington University, 1959.

**Dr. James B. Sweet**, associate professor of surgery, from chief of oral and maxillo-facial surgery and Department of Dentistry, U.S. Public Health Service Hospital, Nassau Bay, Tx.; B.A., Lafayette College, 1956; D.D.S., University of Pittsburgh, 1964; M.S., New York University, 1975.

**Dr. Edward J. Tye**, associate professor of restorative dentistry-complete restorations; from prosthodontic lab officer and prosthodontist, Kuhn Dental Clinic, U.S. Army Dental Corps; B.S. in chemistry and biology, Loyola University, 1955; D.D.S., University of Illinois, 1958; certificate in removable prosthodontics, Brooke Army Medical Center, 1969.

## Health Science Center General

**Robert J. Johnson**, assistant director of purchasing; from purchasing director, University of Illinois Rockford School of Medicine; A.S. in business, Kishwaukee Community College, 1976; B.S. in marketing, Northern Illinois University, 1980.

## School of Nursing

**Carol S. Entman**, instructor; from instructor in staff development and pediatric oncology, M.D. Anderson Hospital; B.S.N., Duke University, 1966; M.S. in maternal child nursing, Texas Woman's University, 1979.

## School of Public Health

**Patrick R. Clifford**, assessment and referral specialist in behavioral sciences; from instructor, Chemical Abuse Counselors Program; University of Houston Continuing Education; B.A. in psychology, College of Staten Island, City University of New York, 1979; M.A. in psychology, Hunter College, City University of New York, 1980; completing Ph.D. in behavioral sciences, UT School of Public Health.

**Dr. Richard D. Remington**, visiting professor in biometry; from dean and professor of public health, University of Michigan School of Public Health; B.A. in mathematics, Montana State University, 1952; M.A. in mathematics, Montana State University, 1954; M.P.H., University of Michigan, 1957; Ph.D. in public health statistics, University of Michigan, 1958.

**Dr. David P. Smith**, assistant professor of demography in behavioral sciences; from staff member in analysis division, World Fertility Survey, International Statistical Institute, London, England; B.A. in problems of the developing nations, University of California at Berkeley, 1966; Ph.D. in sociology, Harvard University, 1978.



# Research on special rats may cure hydrocephalus in children

By Diane Broberg

Hydrocephalus, a condition of abnormal accumulation of fluid in the brain, leads to enlargement of the head and, if untreated, mental retardation. It has several neurosurgical treatments, but no medical ones.

Two researchers at the Medical School are trying to find a drug that may prevent or cure this often congenital condition. They are doing so with the help of a colony of rats — so inbred that nearly half of all its newborns are hydrocephalic. It may well be the only such colony in the world.

Dr. Dennis F. Kohn, professor and chairman of the Department of Comparative Medicine, can tell if a rat is hydrocephalic immediately after its birth. Using electron and light microscopes, he plans to look at fetal rats to discover the earliest point at which abnormal brain development begins. This information will help tell why the disease occurs and will give an indication of what type of drug might be effective.

Meanwhile, Dr. Michael Miner, a neurosurgeon, is studying the inbred rats physiologically.

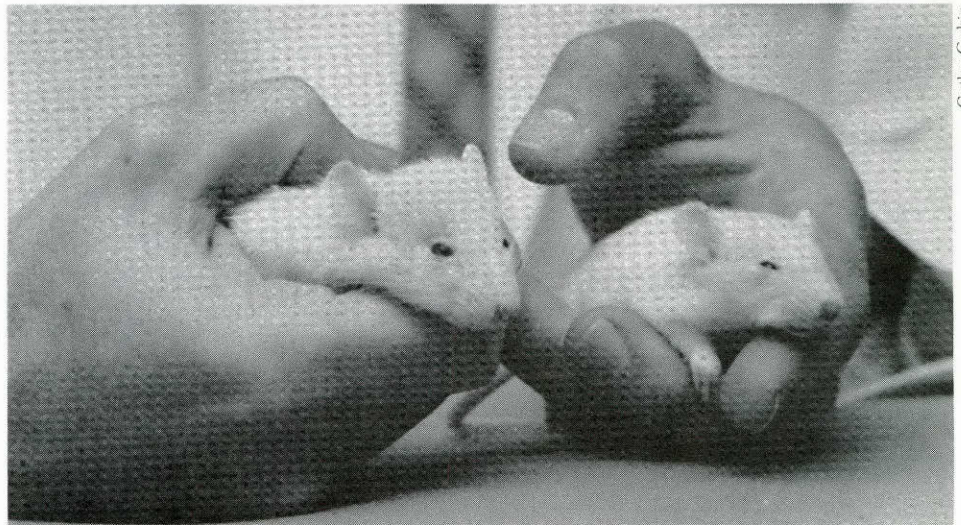
He has already found that these

rats produce an abnormal amount of spinal fluid, and he predicts that this production takes place in the choroid plexis — an area of fringed folds within the brain.

“We are testing drugs currently being used for other conditions,” Miner said. Their purpose is to find a drug that is effective in curing hydrocephalus

but not dangerous to children, he added. The less toxic the drug, the sooner it could be approved.

“This is much more like the human condition than most animal research in this area,” Miner said. “We don’t have to inject fluid into the animals, since they are born hydrocephalic. It is a very clinically relevant model,” he said.



Cathy Gubbin

**CAN YOU TELL THE DIFFERENCE BETWEEN THESE RATS?** The one on the left has an enlarged head due to congenital hydrocephalus. In this inbred rat group, nearly half of the newborns are born with this condition of fluid in the brain. They are useful to researchers here in a study that may help cure the disease in children. If untreated, the disease causes mental retardation.

## Police try to stay ahead of Houston crime

Thieves stole more than \$10,000 in state and personal property from the Health Science Center in January. New measures by the UT Police aim to make it a lot more difficult to commit a crime here.

“Crime is increasing all over Houston, and we want to be ahead of the game here,” said Chief Charlie Price of the UT Police.

To accomplish that, several steps have been taken recently. There’s an alarm system now at the Dental Science Institute and plans for more alarms at buildings that don’t have security guards. A HELP hotline was also recently installed, putting anyone on campus in touch with UT Police just by dialing 792-4357 or HELP.

In addition, an officer is now assigned to the School of Public Health during weekday evenings and when the school’s library is open on weekends. After-hours access between Hermann Hospital and the Medical School has been curtailed to prevent anyone visiting Hermann at night from having access to the Medical School.

Besides these innovations there are several services the police here offer that Price stresses that everyone should be aware of. For example, the police will check in periodically on people who are on campus at night, Price said, if they’d just let the police know where they are and for how long. The police also will escort people to their cars or to other buildings after dark.

Plans for the future include:

- The use of ID card readers at the entrances to the Freeman Building.
- Overhaul and regular maintenance of present TV camera monitors and the addition of some new ones.
- The installation of alarms at locations where cash or other valuables are left overnight.
- Better lighting in parking lots and around buildings.
- The establishment of public and non-public areas in buildings. Officers will then regularly check people in the non-public areas for proper identification.





# FDA to approve streptokinase mainly as a result of work here

By David Moore

The FDA is scheduled to approve streptokinase as a treatment for heart attacks "primarily as a consequence" of work being done at the Medical School and Hermann Hospital, according to Dr. Lance Gould.

"It's not a cure-all," Gould said. "It's just a way that works better than anything else we've had before."

Physicians at the Medical School, where Gould is director of the Division of Cardiology, have treated 91 patients with streptokinase in the last 18 months, more than any other trial site in the country. The results show that streptokinase therapy significantly improves the pumping ability of the heart, Gould said, especially after larger, more serious heart attacks.

Using the enzyme streptokinase, doctors dissolve the blood clot that usually causes a heart attack. Destroying that clot restores blood flow to the area of the heart the artery serves, an area that would normally die without a blood supply.

If the doctors can begin the new therapy within 18 hours after the clot forms and the pain of a heart attack begins, they have the chance to prevent at least some heart muscle damage. If they can begin treatment within six hours, the chances are best of saving some heart muscle, Gould said.

Gould stresses the need for physician and public awareness of the availability of the therapy since time is so important. About 18 hours after the onset of the heart attack, he said, heart tissue that could have been revived is dead.

---

**If the doctors can begin the new therapy within 18 hours after the clot forms, they have the chance to prevent some heart muscle damage.**

---

"It doesn't cure the coronary disease but it at least partially reverses acute damage," Gould said, "and that heart muscle damage is what shortens life."

In most cases either bypass surgery or drugs are then needed to control the underlying coronary disease that led to the heart attack.

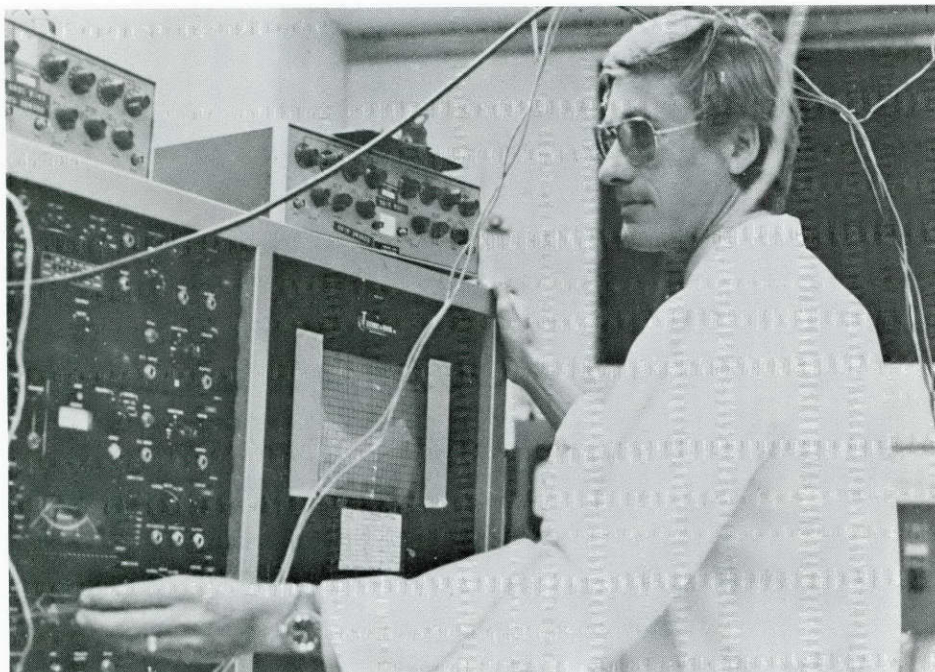
About 80 percent of all heart attacks are caused by the fresh blood clot that streptokinase therapy dissolves, Gould said. The therapy is successful on about 80 percent of those on whom it is used.

Although it's still in its trial stages now, Gould is very optimistic about the therapy's future.

"I think this kind of therapy will become standard within two or three years," he said.

He believes that within five years the technique will be simplified so that the drug can be given intravenously and all hospital emergency rooms will be using it.

The trial here is the only one in Texas.



University of Washington

*OFFERING HOPE* of more complete recovery from a heart attack is the goal of streptokinase therapy. FDA approval of the drug brings the day a step closer when doctors will routinely give streptokinase, according to Dr. Lance Gould, above.

## REC CENTER

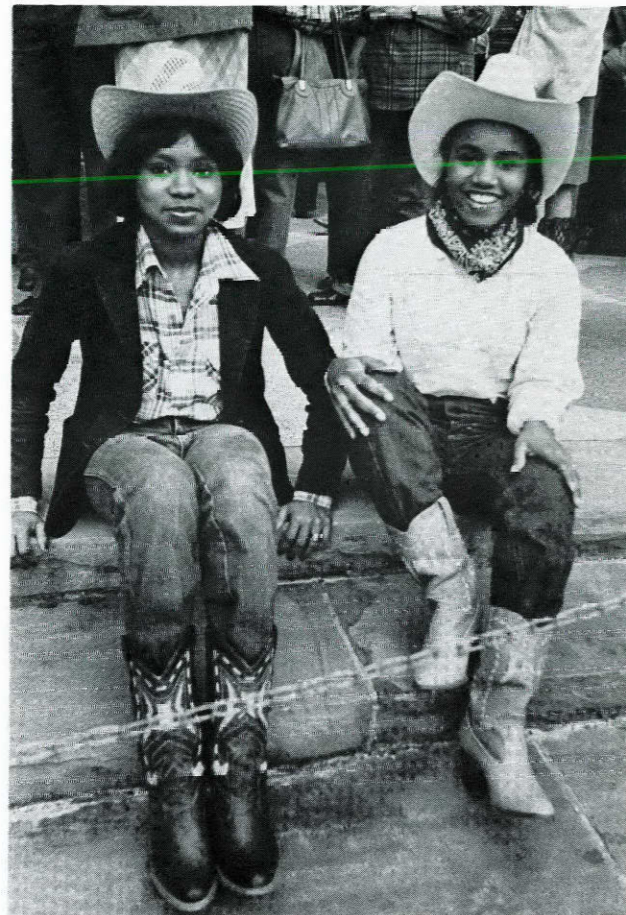
If Go Texan Day found you sitting in the corner instead of dancing, maybe you could benefit from country and western dance lessons. Classes are held on Tuesday evenings at 6:30 in the Rec Center. Partners are invited, but are not required.

Other Rec Center classes include women's weight training (Thursdays at 5:15 p.m.), belly dancing (Wednesdays at 6:30 p.m.) and yoga (call 792-5885 for information).

Sign up by March 29 for softball intramurals. There are men's, women's and co-recreational divisions. The dates are set for other tournaments this spring: badminton, April 17 (sign up by April 15); tennis doubles, May 1; and golf, May 9.

Remember, only Rec Center members can participate in these activities. Membership is open to all HSC faculty, staff and students. For more information call 792-5885.





**TEXAS CHIC** — The Go Texan Day party sponsored by Employee Relations gives Health Science Center students and employees a chance to dress Western — from the tops of their hats to the toes of their high-heeled cowboy boots.

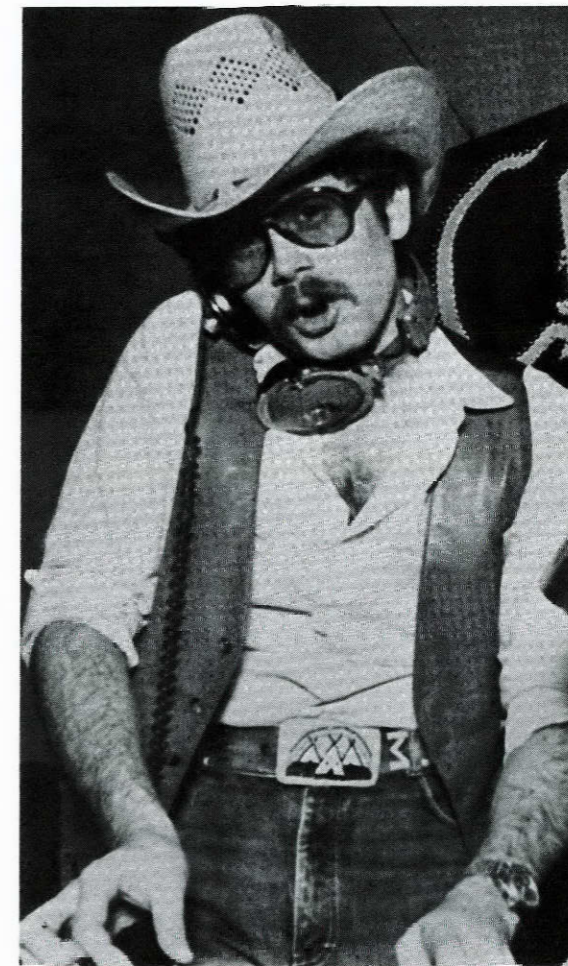
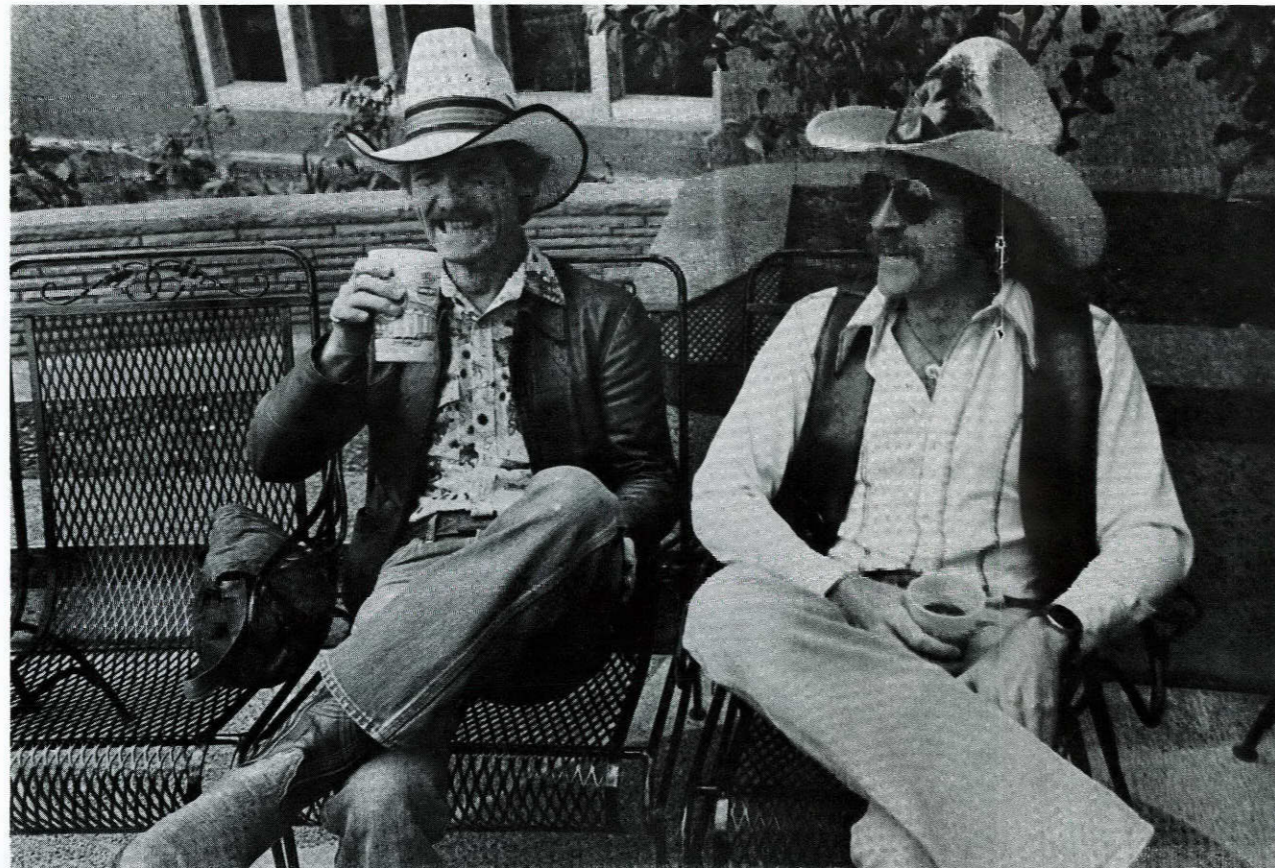


A VERY CONFUSED GIANT ARMADILLO is reported to have mistaken this Schlitz truck for a Lone Star Beer truck and sucked it dry moments before Go Texan Day celebrants began lining up to slake their thirsts. However, about an hour later a new supply was trucked in under heavy guard and the thirsty crowd began to cool down.

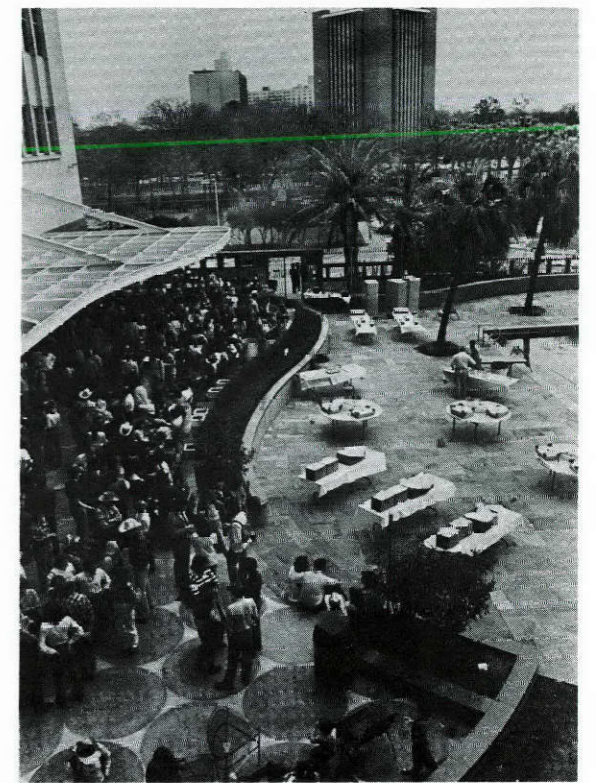
## Go Texan Day!

Photos by Cathy Gubin

**DRINK THAT REFRESHES** — That cowpoke's smile must mean that the beer has arrived.



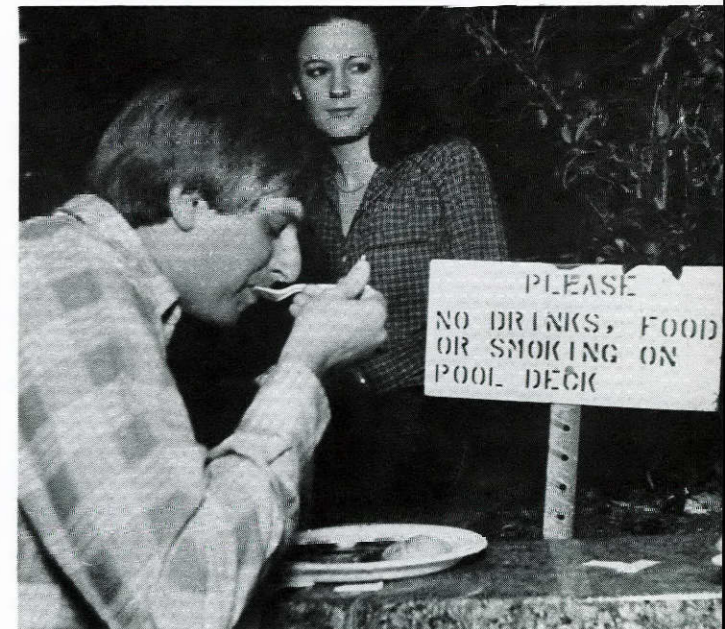
HE LEFT HIS FIDDLE at home, but brought the sound system to provide country and western music for the occasion. Eddie Fraifield is the disc jockey.



HERDS of thirsty folks enjoy liquid refreshments while the chow is set out on tables by the pool.



**TEXAS TWO-STEP** — Serving food and drinks outside leaves plenty of space for dancing in the Houston Main Building lounge.



A GOOD CAUSE for bending the rules is the free barbecue dinner served on the pool deck of the Houston Main Building.



---

# BMC program welcomes new director

By Kenna Giffin

Most students, at one time or another, have had the frustrating experience of having an instructor who knows a subject intimately but has difficulty communicating that information to the students.

Instructors often recognize the need to improve their communication or instructional techniques, but until fairly recently, often didn't have anyone to turn to for assistance.

Now there are specialists whose function is to help instructors improve their teaching. In the medical arena, they're called biomedical communication specialists. At the School of Allied Health Sciences, one of these specialists is the new director of the Biomedical Communications Academic Program and chairman of the Division of Instructional Development, Dr. Allan Abedor.

Abedor came to the Health Science Center last summer from Michigan State University, where he was a senior consultant in the Learning and Evaluation Service and associate director of the Educational Development Program, two agencies concerned with improvement of instruction.

His preparation for taking over the Biomedical Communications Program is extensive. He served in the U.S. Air Force for 12 years as an instructor pilot, classroom instructor and training officer. After leaving the USAF he went to Michigan State to earn his Ph.D. in instructional development and technology, an area in which the university excels.

As one of the early graduates of this program, he became an initial member of the university's program on teaching improvement. He spent 14 years there consulting with faculty and administrators on improvement of teaching, course and curriculum design and evaluation.

When he came to Houston last summer, he tackled two new jobs. The first is directing the recently rejuvenated Allied Health Division of Instructional Development (DID), which consults with allied health faculty on course

design or preparation of materials for classes. He described his function and that of his new faculty as "consulting with SAHS faculty on all matters relating to curriculum, instruction and evaluation."

His second job is directing the SAHS program in biomedical communications. The year-long, post-baccalaureate program leads to a certificate in biomedical communications. This professional training program provides the skills and knowledge needed by students to obtain positions as instructional designers (consultants to subject matter experts) in health-related or industrial training situations.

"I would hope that most of our students would find jobs in health-related environments," he said. "But they need the same skills wherever they work. They will be able to help subject-matter experts find the most efficient, effective way of carrying out their teaching responsibilities."

A master's degree program in the Graduate School of Biomedical Sciences or the School of Public Health is available to graduates of the BMC certificate program. Typically, the SAHS credits transfer to GSBS, he said, so only the research thesis is required for completion of the M.S. degree. However, SPH requires additional coursework besides a thesis for its degree.

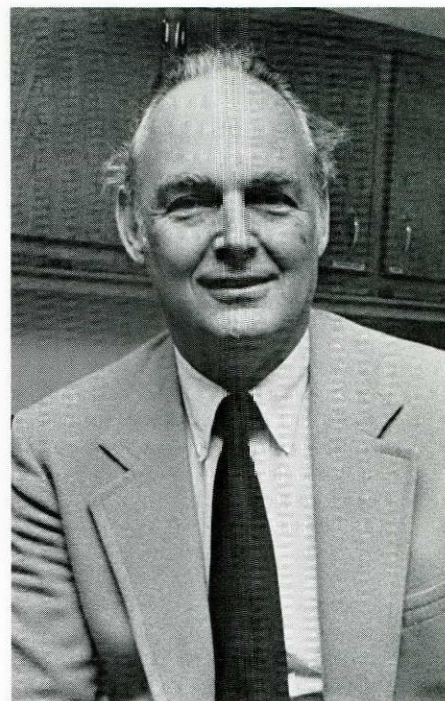
---

**There are specialists whose function is to help instructors improve their teaching. In the medical arena, they're called biomedical communication specialists.**

---

Currently, a baccalaureate degree in any field is required for admission to the BMC certificate program, however a degree in communication, journalism, or education is advantageous.

There are four main curriculum areas within biomedical communications: (1) instructional design and evaluation; (2) instructional technology; (3) management; and (4) health sciences. The latter is a "catch-all" area which



Cathy Gubin

*HELPING TEACHERS TEACH — Dr. Allan Abedor is the new director of the SAHS Program in Biomedical Communications. He is also in charge of the Division of Instructional Development.*

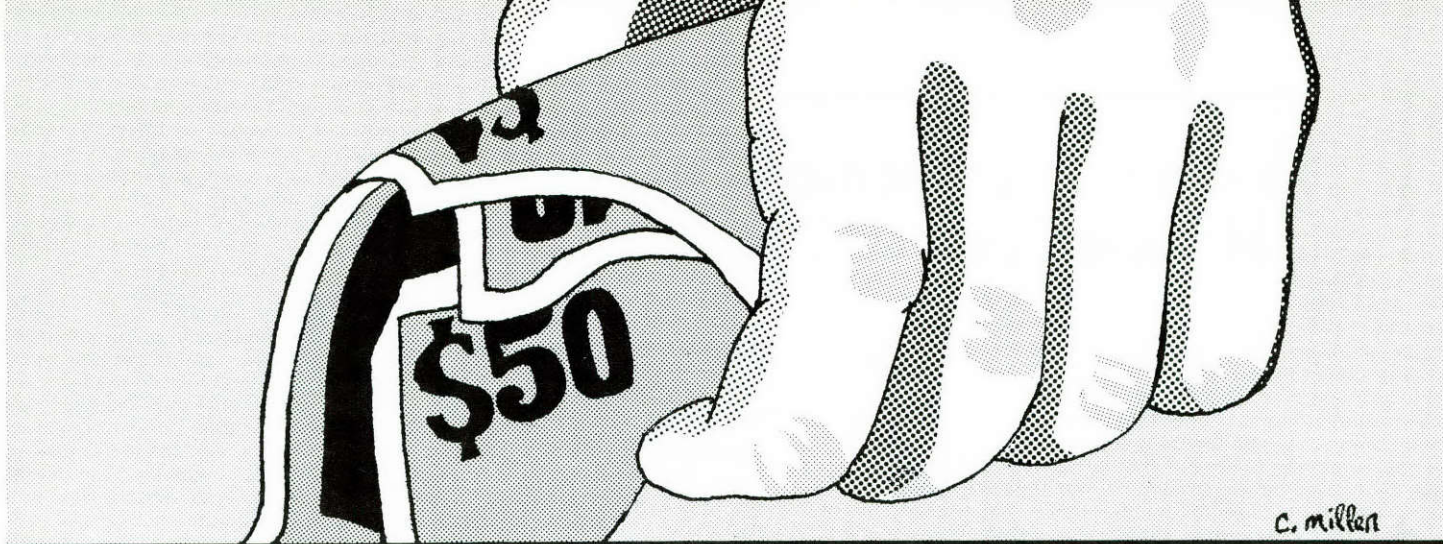
includes research design and statistics, proposal writing, professional seminars and an internship.

The new director and his faculty plan to spend most of this year organizing and building the BMC program. By the end of the academic year, with course and academic changes completed, he and his staff will be devoting more time to the instructional development projects in SAHS. The first project in that area will be to facilitate a school-wide effort of faculty and administrators to design and implement a SAHS faculty, program and administrative evaluation plan.

"I'm very optimistic about the future of the program," the transplanted Michigander said. "I think the employment potential for our graduates is tremendous here in Houston and is improving nationally. I'm also very optimistic about working with the faculty of Allied Health on improving teaching and development of externally funded teaching research and development projects."

Abedor also serves as vice chairman of the faculty futures subcommittee of the Interfaculty Council, is a member of the HSC Committee on the Status of Women and is a member of the GSBS faculty.





C. Miller

IRA  
IRA IRA IRA IRA IRA IRA IRA IRA IRA IRA IRA IRA IRA IRA IRA IRA IRA IRA IRA IRA

## Tax-advantaged investments help you keep more income

By Ina Fried

Every month when you get your paycheck, you can look right there on your paycheck stub and see how much the federal government is taking out for taxes.

Since January 1 you have had the opportunity to reduce the government's share of your paycheck. That's when a new law took effect allowing virtually all wage-earners to establish Individual Retirement Accounts (IRAs). Previously people (like UT employees) whose employers provided retirement programs were not eligible for IRAs.

"An IRA account is nothing but a shoe box where you may place up to \$2,000 a year and write it off your income tax. At a future date, you take withdrawals from that shoe box and pay taxes on them," explained Fred Mecklenburg, account executive with E. F. Hutton and Co., Inc. He spoke at an Employee Relations Brown Bag on "IRAs and other Tax-Advantaged Investments."

An IRA is in addition to any money you may choose to invest in the university's Tax Sheltered Annuity Program. Contact your personnel representative for information on that program.

If you invest \$2,000 a year at 12 percent interest in an IRA, that account would have over \$500,000 in assets at

the end of 30 years, Mecklenburg and his associate Dan Schmieder pointed out.

Tax-sheltered investments help you in two ways: first, you don't pay taxes on the amount you invest or the interest it brings until you withdraw it, usually after retirement when your tax bracket is lower; second, you pay less taxes on your remaining income because lowering your current taxable income also lowers your current tax bracket.

You have a variety of choices for investing in an IRA, Mecklenburg said. You may purchase a long-term certificate of deposit or establish a passbook savings account at a bank, savings and loan, or credit union; you may set up an account with a mutual fund; or you may establish an account with a brokerage firm such as E. F. Hutton or Merrill Lynch Pierce Fenner & Smith.

Many brokerage firms offer a choice between self-directed accounts and custodial accounts, Mecklenburg said. Through a self-directed account, you may invest your money in real estate limited partnerships, stocks or mutual funds. E. F. Hutton's custodial IRAs offer the flexibility of shifting your funds as often as you like among a bond fund, a stock fund and a money market fund.

Deciding whether or not to invest

in an IRA depends on several factors, Mecklenburg said. If you're approaching the 50 percent tax bracket, you need to defer more and more taxes, and it's probably worth your while to set aside as many dollars as you can, he said. But you should remember that an IRA is a long-term investment. If you withdraw money from an IRA before you reach age 59½, you incur a penalty. If you expect to need access to your money before retirement, such as for sending children to college, you might consider an alternative tax-advantaged investment.

Mecklenburg briefly outlined two types of tax-advantaged investments:

- Using after-tax dollars in a tax-deferred status. This means investing money on which you have already paid income tax so that the interest or dividends it brings are tax-deferred. Among such investments are annuities, municipal bonds, All-Savers Certificates, and utilities stocks in which the dividends are re-invested.
- Using after-tax dollars to earn capital appreciation. Investing in stocks or real estate partnerships can bring long-term capital gains, which are taxed at a maximum of 20 percent.



# Let the child in you come out at the Houston Festival

I am the child in you who can never get out. Ever since high school days, I have been forced to work 40-hour weeks (and sometimes more), not to get any fresh air and sunshine, and to be very sensible. I HATE IT!

I do get to play sometimes, but more often than not it's something structured and unimaginative. I long for the days when I could entertain myself all afternoon with a small puddle of water on the street: floating leaves down it, damming it up, dropping pebbles into it. And I miss being outdoors most of all.

I know that you read the weekend calendars and the art and music sections of the local newspapers and magazines. I've even seen you put their clippings on the refrigerator door under the "Remember your Diet" magnet.

But you never look at them again, and when it comes time to order the tickets, the shows are usually sold out. "It was too expensive anyway," you always say. Isn't it just like an adult to say something like that?

But there may be some hope for us. I have just heard about the Houston Festival to be held for 10 days in March and it's all *free* — so no excuses.

Over 2,500 artists (dancers, singers, actors) will perform on stages throughout the downtown area March 18-28, and on the weekends there will be a free shuttle bus between the stages and the art shows.

I look forward to what they call "Artplay." It will feature kites, murals, earth games and improvisational activities (that means we'll make them up as we go, I think.) I hope you will loosen up enough to take part in some of the "hands-on" art experiences.

There will be an art auction, art exhibitions and a gypsy market (for shopping). The stages throughout the downtown area will feature everything from poetry readings, ballet and opera to country and western music and jazz. Free programs with times and places for the events will be handed out at the festival.

It will begin at 10:30 every morning and last until 3 p.m. on weekdays

and 6 p.m. on weekends, except on Saturday, March 27, when the "Bayou Bash" party will last from 7:30-10:30 p.m. That will mean fun and dancing for the whole family at Sam Houston Park.

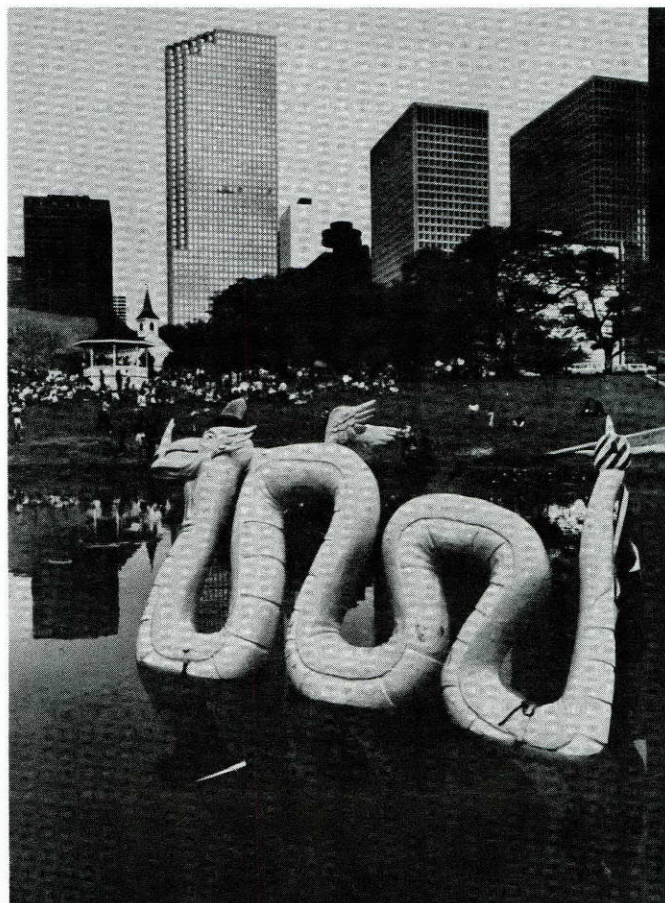
And the food will be great — international cuisine will be available every day.

Let's plan to go. After all, I deserve to be heard!



ARTPLAY at the Houston Festival allows everyone's imagination to come out. Here, a mother and daughter work on canvas painting in Tranquillity Park.

*ARE YOU DRAGGIN'?*  
Maybe you need to let the child in you come out at the Houston Festival, an annual celebration of the visual and performing arts.





# McHenry tries to figure out how enzyme makes more DNA

By David Moore

Take away all the parts of a car except the chassis and the engine and what you have left will still do *something*, but it won't take you to Dallas. If you add back to this 'car core' some of the other parts, then, behold, it drives. But without all the major parts it won't run like a car just off the production line.

Moving from a Detroit assembly line to a Houston laboratory may seem a big leap. But not when dealing with Dr. Charles McHenry and his research into a perplexing little enzyme known as DNA polymerase III holoenzyme.

"I never expected when we started this work to find such an exceedingly complex enzyme," said McHenry, an assistant professor of biochemistry at the Medical School. But complicated it is, not to mention important.

The enzyme, called "pol III" by those who work with it, is essential in reproducing DNA, the double helix or strand of genetic material that carries the blueprint for the biological assembly of all life. Pol III is an intermediary in the reproduction of DNA. DNA is the heart of the chromosome. And chromosomes, of course, determine whether you have blue eyes or brown, whether you are a genius or have Down syndrome, whether you are a man or, quite literally, a mouse.

Pol III is an enzyme composed of at least seven proteins. There are three proteins at the core and four more attached to that core, each represented by a Greek letter. What McHenry has been doing is, as in the example with

the car, removing some of the parts and then seeing how well the rest of pol III does its job, thus giving insight into the functioning of the parts.

One of the first things he did was to see what the core did when stripped of its, to use the car analogy, options. Plain Jane.

He found that it doesn't do its job at all on naturally-occurring DNA, its job being to collect the component parts of the DNA molecule from within the cell and assemble them into the double helix. The core alone, he found, works about as well as a car resting on cinder blocks.

One of the next steps was to take away only three of the four proteins that surround the core and see what happened. McHenry left one protein called Tau, and stripped off the other three from the core. The results will be published soon in *The Journal of Biological Chemistry*.

Hold on to your seats because this gets a little complicated now. Pol III, when introduced in the test tube to natural DNA and a certain base, spermidine, assembles the DNA, piecing together more than 5,000 pieces at a time. But if you substitute the core plus Tau for the whole pol III, it still pieces together the DNA, but at 100 nucleotides at a time rather than the full throttle 5,000.

That's not all. McHenry also found that when Tau is left on the core and the other proteins removed, the resultant enzyme weighed far more than just the sum of the parts. It formed, he found, two cores and two Taus, joined together.

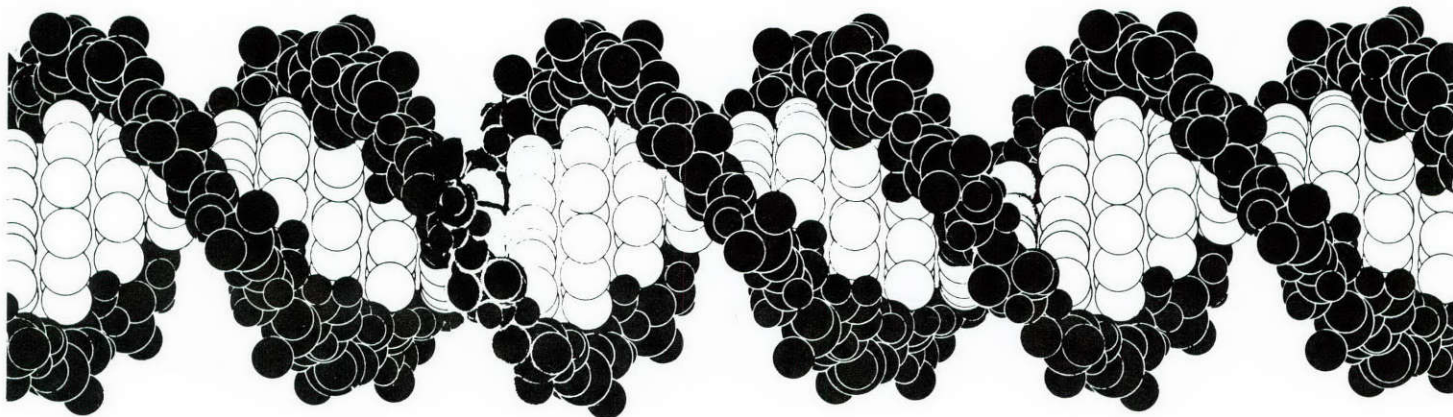
"At first we were really puzzled by that," said McHenry, who also has an appointment in the Graduate School of Biomedical Sciences. Now it's theorized that those two halves copy both strands of the double helix simultaneously, making two new strands at once.

So what? That's well asked since he's not working with human subjects but a bacteria that lives in your gut: the ubiquitous and innocuous *E. coli*. He's not even working with *E. coli*'s DNA, but with the DNA of a virus that afflicts *E. coli*. And he's been doing it for five years.

Why? Well for one thing, starting at the bottom of the biological ladder and characterizing very basic things is the best approach, McHenry believes, to getting at the more advanced forms of life; for understanding precisely how, for example, an embryo cell reproduces itself and why an adult cell is stable. For another thing, there are more similarities than there are differences between what he's been working with and human DNA, he said.

And lastly, whereas writers can make not very good analogies between DNA and automobiles, scientists like McHenry can make very good analogies between the way DNA replicates itself and the way, for example, cancer cells reproduce.

The analogies (biological, not automotive) are apparently very sound. The American Cancer Society, the National Institutes of Health and the Robert Welch Foundation all fund his research. In that way they have shown, in a very tangible way, "their appreciation of these analogies," McHenry said.





# A birthday party for a TV show? No place but Texas

By Kathie Robertson, HSC-TV

Everybody loves a party! And the Health Science Center is no exception. On Friday, Feb. 5, Health Science Center Television celebrated the first birthday of "Midday" with a two-hour "live" television program in the Medical School Leather Lounge.

"Midday" is the HSC's daily program of news and information for the Texas Medical Center.

The birthday program featured highlights of "Midday"'s best stories from its first year on the air, including visits to many of the institutions around the Texas Medical Center. There was a segment from "Midday"'s very first program, which aired in February 1981.

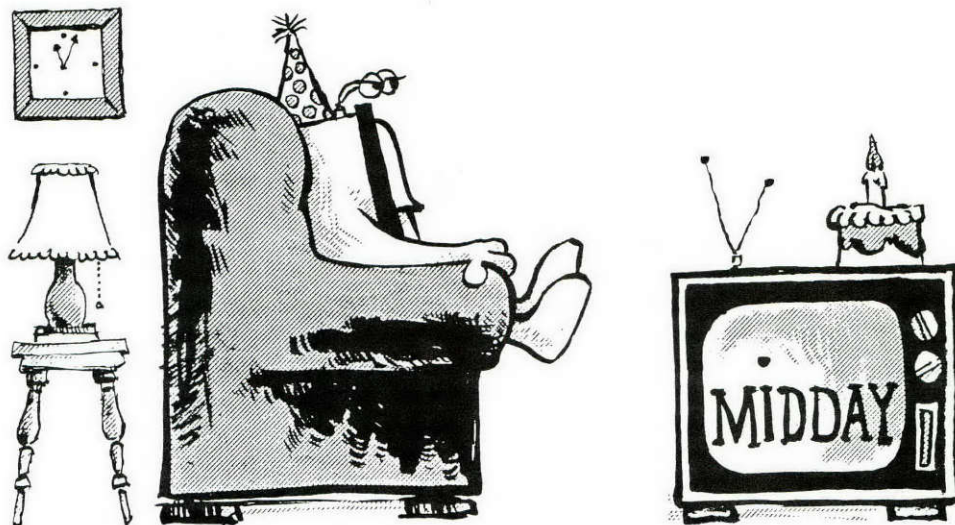
Viewers also got to see a short "blooper" tape of all those well-hidden mistakes. Live music was provided by David Mellard, from M.D. Anderson Hospital, and "Primo Rose," a musical duo of UT medical students.

The long and varied career of HSC-TV director Don Macon was spotlighted on videotape. Both Macon and Joe Sigler, executive director of public affairs, were on hand to share their dreams for the future of "Midday," and HSC-TV in general.

Of course, no party would be complete without a cake! So Marie Candelario, from the Department of Neurology, made a special birthday cake. Not only was it delicious, but she even decorated it on camera.

Come to think of it, that cake was so good, it's a shame to have to wait until next year for another piece! But "Midday"'s lunchtime treats are still available every day. On Channel 10.

To suggest a story for "Midday" or to volunteer as a guest co-host call 792-7884.



## NEWS NOTES

### Aid for the Elderly

Lifeline is a 24 hour service providing subscribers with immediate community medical and social service at the touch of a button attached to a telephone or carried as a portable unit.

The subscribers' communicators notify the Emergency Response Center at Hermann Hospital, where information cards listing subscribers' names, addresses, phone numbers, medical conditions and names of persons to be called in case of emergencies are listed.

When a subscriber pushes the button, the monitor at the center calls the subscriber to find out what the emergency is. If there is no answer, the monitor will call one of the emergency responders listed on the card to check on the subscriber.

The system can also be equipped with a timing device for 12 or 24 hours. If the subscriber fails to reset the device, a signal for help will automatically be sent to the Emergency Response Center.

For more information call 797-2282.

### Dental Continuing Education

The Dental Branch has received approval by the National Committee on Continued Dental Education to sponsor continuing education for dentists for four years in Activity Classifications A and B.

Classification A includes lecture courses while Classification B courses include laboratory or clinical experience.

The Dental Branch offers nearly 40 programs every year in a variety of topics related to dentistry. The school works with the Houston District Dental Society and the Houston Area Dental Society on some programs.





# Sportathon reps will help you; return entries by March 24

Have you entered Sportathon '82? The deadline for entries for the sports/health promotion day is March 24. This year, applications are being handled by the institutional representatives listed below. They will answer questions and accept completed applications, distribute T-shirts, and most important, hand out team numbers.

Team numbers are a new item on the forms this year, and every team must have one. The institutional representatives will assign them to you. Their purpose is to help in computerizing entries.

A description of the event rules is on the back of the application. A fee of only \$5 will allow you to enter as many events as you like as long as they don't overlap, and will pay for your navy blue T-shirt. The individual events are: the five-mile fun run, the 100-yard and 440-yard sprints, and the softball throw. Team events are 440-yard relay and mile relay, the obstacle course, volleyball, tug-of-war, bike race, and

"ultimate" frisbee. If you want to enter a team event and don't have your team together, get your institutional representative to assign you a team.

Sportathon still needs plenty of volunteers to help with events. If you are willing to help, contact your institutional representative or call 792-5255.

The representatives are:

**Dental Branch** - Ted Pate, 792-4100 (Room 410 DB)

**Graduate School of Biomedical Sciences** - Sheryl Hefner, 792-5224 (Room 7.242 MSMB) and Edna Merritt, 792-4655 (Room S105 GSBS)

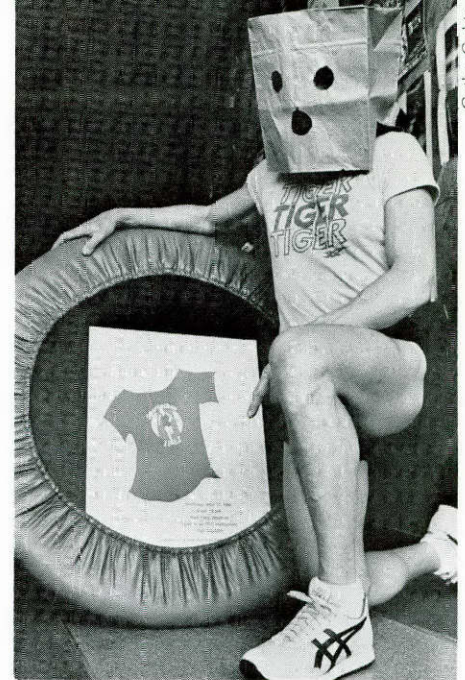
**School of Allied Health** - Rose Kunik, 792-4457 (Room G734 Freeman) and Elena Toporoff, 792-4497.

**School of Nursing** - Nancy Boothby, 792-7873 (Room 528 HMB)

**School of Public Health** - Claudia Kober, 792-4310 (Room W130 SPH)

**Speech and Hearing Institute** - Julia Bowman, 792-4500 (Room S134 SHI)

**Medical School** - Beverly Wright



Cathy Gubin

*NO DISGUISES ARE NEEDED to sign up for Sportathon '82 — anyone working or going to school in the Texas Medical Center can enter. There are team and individual events, and team numbers are assigned by the volunteer "Sportathon representatives" in each institution. Have you entered yet?*

and Cherie Chalk, 792-5255 (Room 2.112 MSMB)

**HSC-General** - Lee Aberle, 792-4288 (Room 607 HMB)

## UT System studies med school enrollments

The level of academic qualification of first-year classes at the UT medical schools has changed very little over the last five years, and the percentages of males and females and of ethnic groups are comparable to national averages.

These are some conclusions of a recent report from The University of Texas System Institute for Health Policy and Planning in Austin, as explained in an article in the February issue of Texas Times by editor John Payton.

The report follows a system-wide medical admissions study for the years 1976-80.

Most of the data included in the report are from the computer-based records of the UT Medical-Dental Application Center (MDAC) in Austin. The MDAC permits applicants to apply to one, or a combination of the four UT medical schools (or dental school), using a single application, and allows the data from the four schools to be

combined for a system-wide analysis.

According to the report, the applicant pool for UT medical schools has declined since its peak in 1976, when 1,903 applications were received. However, the number of applicants after that time has not varied by more than 96.

The number of male Caucasian applicants has declined, while the number of female and other minority group applicants has increased. At the same time, the number of applicants under age 26 has declined, and the number over that age has increased.

During a time when national medical school enrollments have risen 10.1 percent, UT medical schools increased their enrollment by 27.1 percent.

Although enrollment has increased and the applicant-pool has decreased, the academic qualification of first-year students has remained fairly constant. The students' average Grade Point

Average remained the same from 1978 to 1980 and the average Medical College Admissions Test score dropped only one-tenth of a point.

In 1975, the number of female first-year students at UT medical schools trailed the national average by five percentage points. By 1980, UT had a 27.1 percent female first-year enrollment, while the national average was 28.9 percent.

For all non-Caucasian ethnic groups, the UT medical schools have averaged a 14.3 percent enrollment compared to 13.9 percent for the rest of the nation.

Copies of the 38-page report are available by writing Don Neumann, Assistant Director, Institute for Health Policy and Planning, UT System, 601 Colorado, Austin, Texas 78701, or by calling 512/471-1533.



# Calendar

## March 15 - April 7

**17 Wednesday**  
11 a.m. Medical School: NIRMP match list posted with internship assignments for graduating medical students. 3.001 MSMB.

**18 Thursday**  
Noon. HAM-TMC Library movies: "We Have Met the Enemy and He is Us;" "Rise and Fall of the Great Lakes;" and "Chain of Life." Rm. 007. Free.

Regular Spring 1982 Quarter Registration for GSBS. Registrar's Office, 533 HMB.

**19 Friday**  
Nursing school informal graduation exercises.

**22 Monday**  
Regular Spring 1982 Quarter Registration for SAHS. Registrar's Office, 533 HMB.

**24 Wednesday**  
3 p.m. Emergency Medical Services program informal graduation exercises.

**27 Saturday**  
8 a.m. Houston Hemophilia Fun Run. Rice Stadium Parking Lot. Call 792-5450.

**29 Monday**  
Regular Spring 1982 Quarter Registration for Nursing School. Registrar's Office, 533 HMB.

**30 Tuesday**  
Late fee payment and late registration spring 1982 quarter begins for GSBS, SAHS and nursing schools.

**DO YOU GET THE BLUES ON MONDAY MORNINGS? Starting in April, there will be a weekly news service of The Houtexan called Monday Morning. It will cheer your spirits and inform you of current Health Science Center news. The Houtexan will be published the first of every month thereafter.**

## April

**2 Friday**  
Medical School Alumni Day. Through Saturday, April 3.

**6 Tuesday**  
Last day of late registration and late fee payment, spring 1982 quarter for GSBS, SAHS and nursing schools. Registrar's office, 533 HMB.



The University of Texas  
Health Science Center at Houston  
P.O. Box 20036  
Houston, Texas 77025

Room 1117  
1100 Holcombe Blvd.

Non-Profit Org.  
U.S. Postage  
**PAID**  
Permit No. 1034  
Austin, Texas