

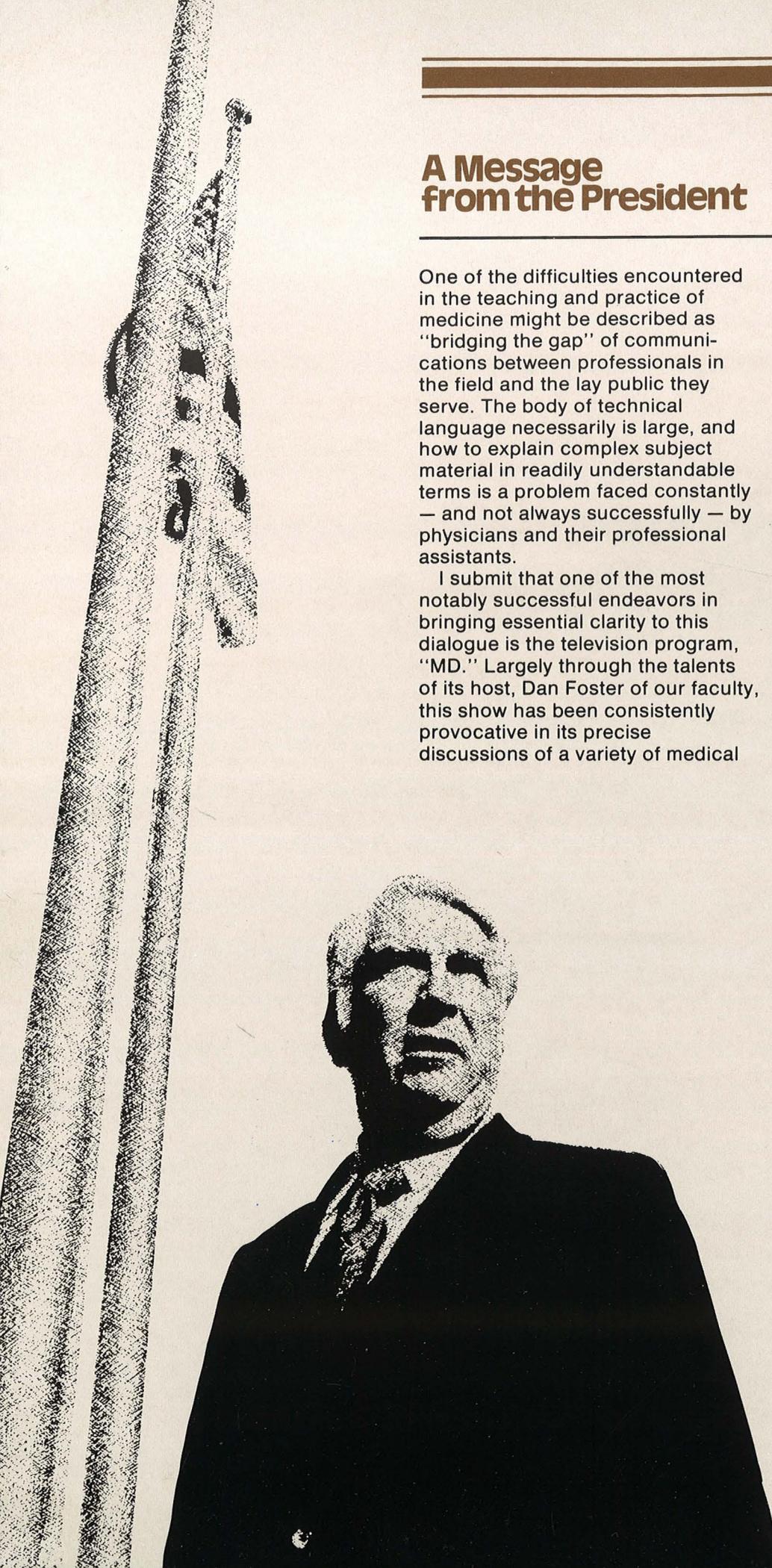
HEALTH SCIENCE

SPECTRUM



Health Information via TV: Benefits by the Bushel
Center's Show Goes on National Network

A Message from the President



One of the difficulties encountered in the teaching and practice of medicine might be described as "bridging the gap" of communications between professionals in the field and the lay public they serve. The body of technical language necessarily is large, and how to explain complex subject material in readily understandable terms is a problem faced constantly — and not always successfully — by physicians and their professional assistants.

I submit that one of the most notably successful endeavors in bringing essential clarity to this dialogue is the television program, "MD." Largely through the talents of its host, Dan Foster of our faculty, this show has been consistently provocative in its precise discussions of a variety of medical

subjects, and thus has proved popular with a widening TV audience. That popularity has just reached national proportions with the "arrival" of the program coast-to-coast on the Public Broadcasting System after several successful seasons as a highly regarded (and rated) program on KERA-TV in Dallas and, recently, other stations in the Southeast.

"MD," it seems to me, is unique in a number of ways. Its straightforward approach to the presentation of factual information about health and disease is free of sensationalism on the one hand or pedantry on the other. Dr. Foster brings qualities of warmth and believability to the program that weigh heavily in the achievement of a high degree of audience acceptance. His insistence upon complete but not excessive explanation, upon understandability without oversimplification, brings a balance to the admittedly tricky task of relaying complicated data to a general audience. The end result is that the viewers find some answers to gnawing questions about their own state of health and well-being. But just as importantly, they are not led to believe they are getting *all* the answers, to questions about conditions medical science does not fully understand.

The University of Texas Health Science Center at Dallas has, of course, provided the fountainhead of expertise that has given "MD" its high-quality content. Not only Dan Foster, himself a valued medical teacher and scientist, but a long list of clinicians and researchers from

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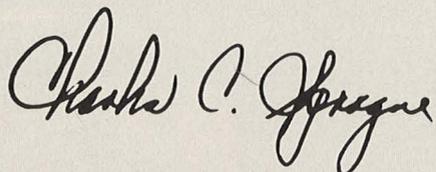
SPECTRUM

The University of Texas Health Science Center at Dallas

all segments of the medical faculty have brought viewers their own special insights. (Only recently, with its widened scope, have up to half the program's guests been selected from off our Dallas campus.)

Through the potent medium of television, "MD" is performing a highly useful service to a sometimes bewildered lay public, beset by confusing and contradictory information about health subjects of vital interest. In so doing, Dr. Foster and his associates are adding a new dimension to the traditional concept of medical teaching. They are helping to meet twin goals of our institution — education and public service — in a most novel and effective way.

For this, all those connected with the program, both within our academic family and at KERA, as well as its generous funding sponsors, Cecil and Ida Green of Dallas, deserve our sincere thanks. They can all take pride in the excellence of this extraordinary informational effort and in the growing success and recognition it enjoys.

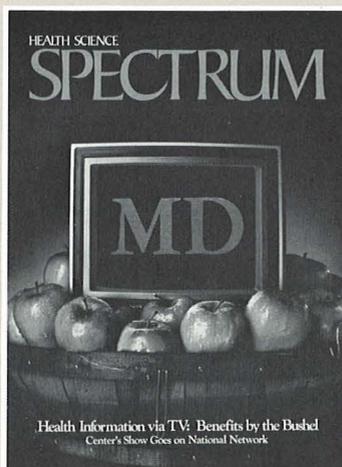


CHARLES C. SPRAGUE, M.D.
President.

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ON THE COVER: A TV set amid a basketful of dewy apples may seem incongruous, but it's our way of calling attention to the "MD" show (Page 2) — a glowing example of how to successfully provide "bushels" of health-conscious individuals with beneficial information on medical topics. Darryl Baird took the color photograph, and Bill Gramley furnished art direction and design, assisted by Neal Pointer.

MD on TV: the right prescription

Program developed in Dallas, guided by UTHSCD's Dan Foster, rises to national prominence as a popular medical forum

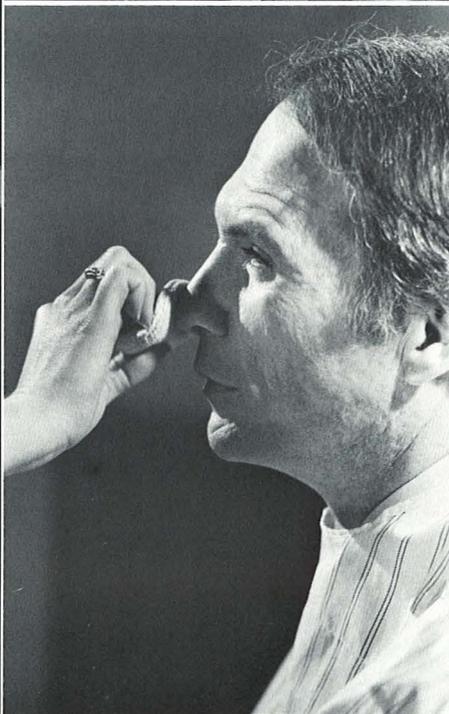
By LANA HENDERSON



Photography: Darryl Baird

It is only about a mile from the University of Texas Health Science Center at Dallas to the studios of KERA-TV, but when Dr. Dan Foster makes that trip shortly after noon every Friday, he leaves one distinct world and enters another.

Behind him he leaves his classes of medical students, his overflowing office desk, his ringing telephone and his white hospital jacket and becomes a famous television personality — a man with a face as widely known in some circles as Johnny Carson or Merv Griffin — as host of



Getting the show on the air, top: Dr. Foster selects a slide "visual" from producer Pat Alexander; microphone readied for guest expert Dr. William N. Kelley; below: makeup is part of the process.

a show called "MD."

"Since MD started, I've lost a lot of anonymity," says Dr. Foster, a professor of internal medicine. "People stop me on the street when I'm shopping to ask about their medical problems. When my wife and I go to a restaurant, we can hear people whispering, 'Look, there's that TV doctor.' Once, at La Guardia Airport in New York City, a total stranger came up to me and said, 'I know you. You're that doctor on television in Texas.'"

USUALLY, Dr. Foster takes a colleague with him into his "other world," a specialist in a certain field of medicine who will discuss his particular subject on Dr. Foster's MD show, a weekly medical information program already seen by thousands of viewers in Texas and throughout the South, and now being shown nationwide by PBS.

"This is an outstanding medical school, some of our scientists here are world famous, and MD lets the community know these valuable resources are here," Dr. Foster says. "It's important that the school not be an ivory tower; we should be involved with the community."

"To tell you the truth, I wasn't very interested in doing the show

when KERA first approached me several years ago with the idea. But then I found out Dr. Charles Sprague, the president of the health science center, was very much in favor of the project, so I agreed to try it — purely as a matter of institutional loyalty."

Dr. Foster never expected that decision to markedly change his life. But it has. "For awhile, I was getting so many phone calls I couldn't get any work done," he says. "I'd come home from the show, and the phone would start ringing. People just wanted to tell me personally about their illnesses."

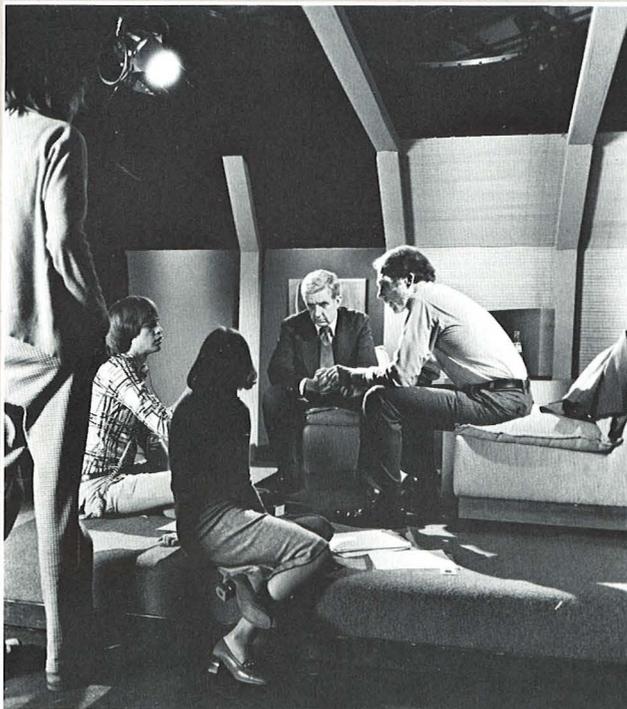
"I'm really not a television personality," he continues. "I'm a professor of internal medicine, and that's exactly what I want to be."

What makes Dan Foster different from most television doctors is that along about the same time fictitious Marcus Welby and Joe Gannon were making their meteoric rise to fame — which soon fizzled, by the way — Dr. Foster was bringing a new dimension to medical programs. He is a real doctor who treats real disease, and when he speaks, television viewers can rest assured he knows what he's talking about. That's why, as MD's moderator, Foster has become a symbol of what the public

wants its doctors to be — informed, communicative and caring. The many phone calls and letters he receives asking his advice are evidence of that. One particularly poignant letter came from a distressed 40-year-old oilfield roustabout who had been told by his physicians in West Texas that he needed a coronary bypass operation. The roustabout, who had seen MD when the subject was heart disease, asked Dr. Foster what he should do.

"I told him that without specific details of his case that I couldn't get an accurate medical diagnosis," Dr. Foster says. "I suggested that if he doubted his doctors' advice that he should seek a second opinion. I try to talk to everyone who calls and answer every letter. I always try to get people into the hands of someone who can help them."

EVEN though Dr. Foster is hesitant to take the credit, MD's popularity appears to be directly tied to the "trust relationship" he has established during the past five seasons with his television audience. "People call Dan, thinking he's the only person in the world who can solve their problem," says MD producer Pat Alexander. "They really have faith in his expertise."



Staff confers and camera crew zeros in for videotaping of program featuring Southwestern's surgery chairman Dr. William Fry, above right.

Since the first show when Dr. Foster was a "nervous wreck" on camera and showed it, he has developed into a full-fledged television personality — even though he hates to admit that, too. He is comfortable now when that little red light goes on, and he relays his confidence to the audience.

"I understand that I was chosen to moderate the show because the producers had seen some news film of me when I was a member of the Dallas Independent School District's Board of Trustees," Dr. Foster says. "Even though I was amateurish, they thought I might be something they could work with."

And, as time has now proven, KERA was correct.

Coupled with Dr. Foster's "screen personality" is his straightforward approach to medicine. He is fully aware that people are hungry for health care information, and he gives it to them in doses they can swallow. Without the sensationalism and fictitious drama that usually accompany television medicine, MD features prominent physicians and scientists who let people know, in lay terms, what their illnesses mean, various modes of treatment and advancements being made toward the

conquest of disease.

MD's fortunes soared when the Public Broadcast Service (PBS) began airing the show nationwide beginning in June. Production began immediately on 13 additional programs, which were completed this summer, and 13 more are being planned for taping beginning in late September. These, combined with the series of 13 shows completed earlier this year, will provide a package of 39 MDs available for weekly beaming by the public network.

INTEREST has run high among the 1250 PBS member stations, and the program is attracting large audiences in many of the more than 150 cities in which segments have already begun to run. Indications are that some 90 per cent of all PBS stations would be broadcasting the program by late this fall.

The network's initial commitment for the first 13 programs was extended to 26 shows, and producer Alexander is optimistic the series will continue the full 39 weeks.

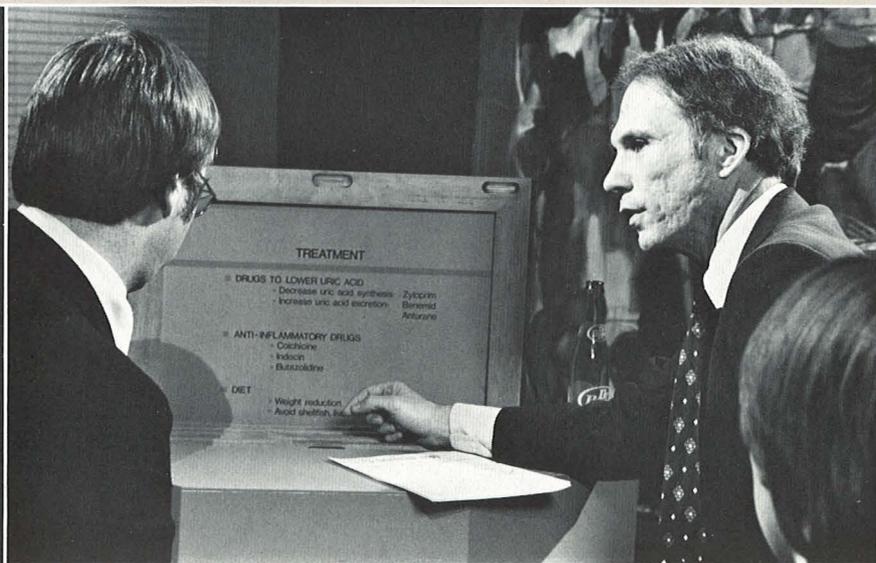
This year's initial package of 13 programs had been seen on KERA and some 20 other public TV stations in the Southeastern United States. Popularity of the program after this wider viewing helped propel it

toward national prominence.

The UT Health Science Center has provided a wealth of guests for the program. Among the notable scientists, who are appearing on the show this season, and their subject areas are Dr. Morris Ziff, professor of internal medicine, rheumatoid arthritis; Dr. Roger Rosenberg, chairman of the Department of Neurology, epilepsy; Dr. Paul C. MacDonald, professor of obstetrics-gynecology and director of the Cecil and Ida Green Center for Reproductive Biology Sciences, estrogen and the menopause; Dr. William J. Fry, chairman of the Department of Surgery, cancer of the colon; Dr. John Fordtran, professor of internal medicine, peptic ulcers; and Dr. Norman M. Kaplan, professor of internal medicine, hypertension.

Almost everyone is interested in health programming," Dr. Foster says philosophically, "because health is the most personal thing we have. As we get older, we get aches and pains, and we come to realize we are vulnerable. When we are young, we don't think about that.

"Ultimately, people know they are going to die, but they want enough basic information to repress it as long as they can. It all comes



Producer Alexander checks copy before the cameras roll; above, chart helps as Dr. Kelley describes treatment for gout.

back to the basic questions man has always asked himself: Who am I? Where am I going? How did I come to be? And am I finite?"

ON the 30-minute program, which features a talk-show format interspersed with films of doctors and patients in the hospital setting and a variety of medical illustrations done by UT Health Science Center's Medical Illustration Services, Dr. Foster makes sure the viewers get the information they need by translating medical and scientific terms into everyday language.

"But," he says, "we don't talk down to our audience. We have a higher opinion of our viewers than lots of people think we should have. That's why our shows are meaty, not milk and toast, and when we're through, a viewer probably knows everything about a disease he ever wanted to know.

"The toughest material can be taught if we do it in a way that's understandable. Occasionally, we miss, though. Then people will tell me straight out, 'Dr. Foster, we just didn't understand that.'"

But most of the time, as viewer response shows, MD is right on target — with the medical community as well as the lay audience. Small-

town practitioners have said the show serves as a source of continuing education for them, and Dallas physicians have praised MD for showing medicine in a human light. Dr. Sprague has called the show an important public service which clearly demonstrates a great public need for clear and accurate medical information. And organized medicine has presented the show a number of commendations, including the Marchman Award of the Dallas Southern Clinical Society, the Russell L. Cecil Award of the Arthritis Foundation, the Media Award of the Texas Public Health Association; and a citation of merit in the Anson Jones competition of the Texas Medical Association. According to the Neilson Reports, MD has been one of the most widely viewed series presented by KERA, and viewer requests for transcripts of the programs have been significant.

This response stems directly from the smooth professionalism of MD, a result of two rules Dr. Foster established when he first undertook the job as moderator. He would neither be a controversial scientist, fanning the flames of sensationalism, nor a friendly practitioner who had all the answers. He maintains a

middle-of-the-road, nuts-and-bolts approach, staying in the background as much as possible, letting the guest physicians be the "stars."

"A high percentage of our guests are articulate and at complete ease before the camera, and that is the real strength of the program," says Dr. Foster, who writes the scripts for the show. "And if they do sometimes slip into using complex medical terminology, I'm there to translate.

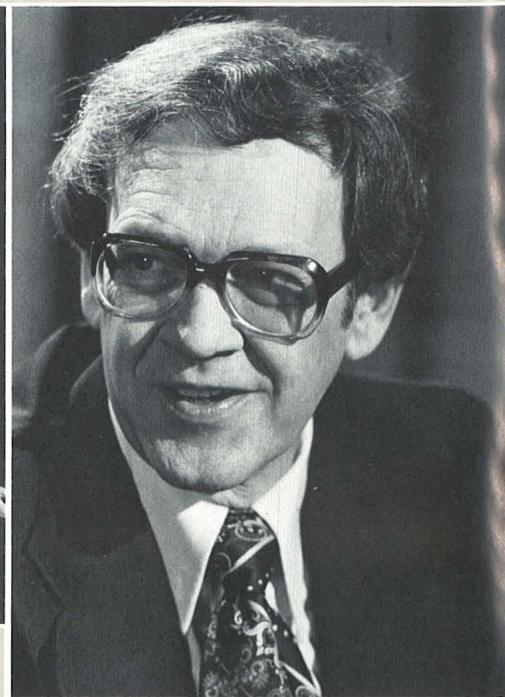
"Really, I'm just a facilitator to bring the information from the expert. I try not to interfere with the flow of information from guests, because the program is geared toward the guest being the center of attention.

"I just try to select disease topics that affect a large segment of the population and choose specialists who can comment on those diseases in a way the public can understand. We must have guests who are not terrified of the community. Some great scientists just can't communicate."

AND unlike the physicians of television fiction, Foster and the MD guests don't try to convince the viewers they are infallible and that they can cure anybody of anything. "We let them know that medicine is not precise," Dr. Foster says. "We try to impress on them that disease



Above: Pat Alexander casts watchful eye during run-through; right: UTHSCD's Dr. Paul MacDonald guests on the show.



is serious business, that medical advancements are being made every day and that there is, above all else, hope."

As MD began its fifth season last January, airing at 7:30 on Monday nights on Channel 13, underwritten by a grant from well-known Dallas philanthropists Cecil and Ida Green, the show was made available for the first time to other public television stations in the southeastern United States through SECA, a regional network.

And that expansion, hailed by both KERA and the physicians participating in the program, facilitated a number of format changes, which will be continued with the new shows. Live for four previous seasons, MD now is taped in advance for distribution to the other stations. Producer Alexander also has incorporated more film footage to introduce the guest physicians, who wear business suits in their dialogue with Foster. The film shows the doctors in their natural hospital setting, treating real patients, to help eradicate public fears about disease. Guest physicians, previously confined to UT Health Science Center faculty, are coming from medical schools across the nation.

"I think live television had a spontaneity and excitement that we miss in the new format," Dr. Foster says. "We had no way of anticipating what viewer questions would be at the end of each live show, but those questions gave a sense of audience participation at the moment, and that's something we won't get on tape.

"Even though I made plenty of mistakes on live television, it showed I was human. With tape, you can edit out mistakes."

FOR example, in the first show of the new season, which featured UT's Dr. John Fordtran discussing peptic ulcers, Dr. Foster accidentally knocked over a diagram of the stomach as he started to show it. He wanted to leave the bobble in, as testimony to the fact that doctors do make mistakes, but the station overruled him.

Regardless of the production hurdles that must be overcome, the goals of MD remain the same as they did in the beginning. Those goals are threefold: To give the public accurate health information, which can rarely be found in the barrage of non-authoritative, confusing, largely incorrect health literature on sale in the marketplace today; to stress the

importance of medical research; and to inform the public of the medical resources available.

And, as most people who have seen the show would agree, MD is meeting those objectives admirably at a time when public distrust of the medical community, expressed through the recent proliferation of malpractice suits, is at an all-time high. In fact, one malpractice expert from the Yale Law School who saw MD has said such shows could be beneficial in alleviating the current malpractice crisis.

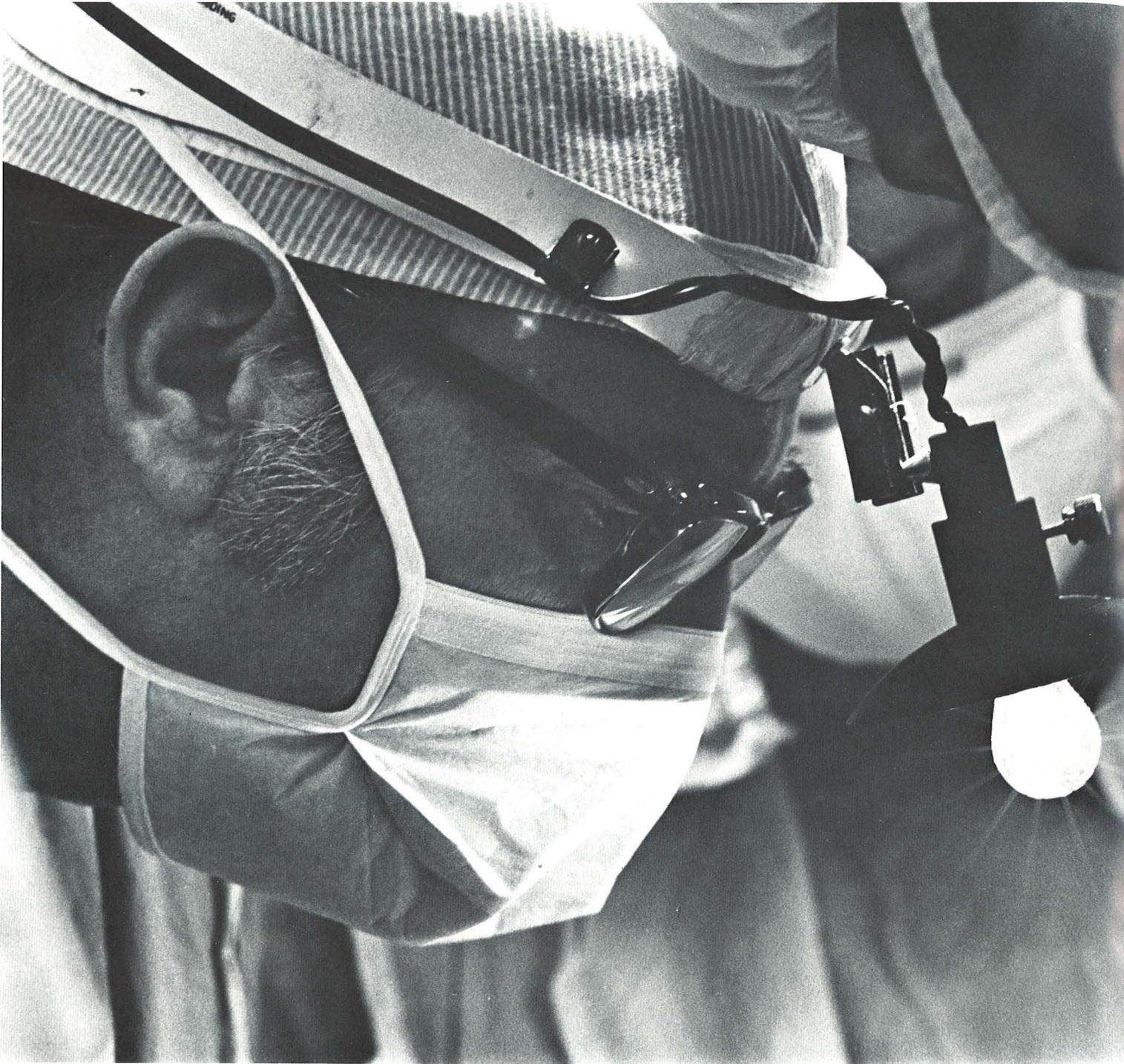
Corny as it sounds, when it comes to bridging the gap between busy physicians and their patients, MD may be just what the doctor ordered.



Dr. Foster studies script.



Dr. Roger Rosenberg, Southwestern neurology chairman, explains types of seizures during "MD" on epilepsy.



**New techniques
make possible bold correction of
deformities that disfigure jaw, teeth**

SURGEON'S LIGHT BRIGHTENS LIVES

By JOHN WEEKS

You see them every day. Countless persons, subtly victimized by deformities of the teeth and jaws: protruding or retruding front teeth; severe overbite, underbite or openbite — their teeth do not meet at all; jutting or receding jaws and chins. Besides the obvious harm to appearance, these "malocclusions" cause sometimes-severe physical and psychological problems.

Increasing numbers of these people are overcoming their dentofacial deformities in dramatic fashion, thanks to a corrective program under way at The University of Texas Health Science Center at Dallas — a team effort involving innovative surgical techniques supported by extensive research and, of all things, a computer that's been taught to draw.

A key figure in this program, which is gaining widespread attention throughout the nation, is Dr. William H. Bell, an indefatigable surgeon on the Southwestern Medical School faculty who has been working for a dozen years toward perfecting a new, bolder and more successful approach to restructuring misshapen mouths.

For his work, Dr. Bell, an associate professor of surgery, has been voted recipient of a timely national accolade: the 1977 Research Recognition Award of the American Society of Oral Surgeons.

"The award is being presented to you," wrote ASOS official Dr. Richard D. Zallen, "in recognition of your significant research contributions in the area of surgical correction of dentofacial deformities which have had a demonstrative effect on delivery of oral surgery care."

Bell was scheduled to receive the award during the ASOS' annual meeting Sept. 24 in San Francisco.

The recognition is another indication of

the growing professional and scientific interest attracted by the work of Dr. Bell's surgical team in Southwestern's division of oral surgery, chaired by Dr. Robert V. Walker. The team has pioneered in refining earlier-developed procedures into a series of more effective surgical answers to disfiguring and disabling malformations that afflict, to some degree, more than half the population.

Early research placed special emphasis on maintaining proper blood supply to keep both bone and soft tissue involved in the complex operations viable — both during and after surgery. Previously, relapse had been a serious and seemingly insoluble problem. Studies begun by Dr. Bell and his associates 13 years ago established the surgical safeguards that made it possible to cut malformed bone and move it about more freely — and more safely.

And computer-drawn models were utilized to help surgeons predict more precisely the results of their planned treatment and to compare facial types involved in the deformities.

With this well-established base, Dr. Bell and his colleagues have performed restructuring surgery during the past three years on some 100 patients — with exciting results. Take the case of Chris Caperton of Dallas.

Chris is a 26-year-old school teacher who had a severe "open bite" — her teeth did not touch in front — before undergoing surgery about three years ago.

Ms. Caperton was victim of a common facial malformation known as "long-face syndrome." This means, in simple terms, that the upper jaw or maxilla is disproportionately "long" vertically, in relation to the rest of the facial bones, creating varying degrees of dysfunction.

In the operating room at Parkland Memorial Hospital, a thin horizontal "slat" of her



Photography: Darryl Baird

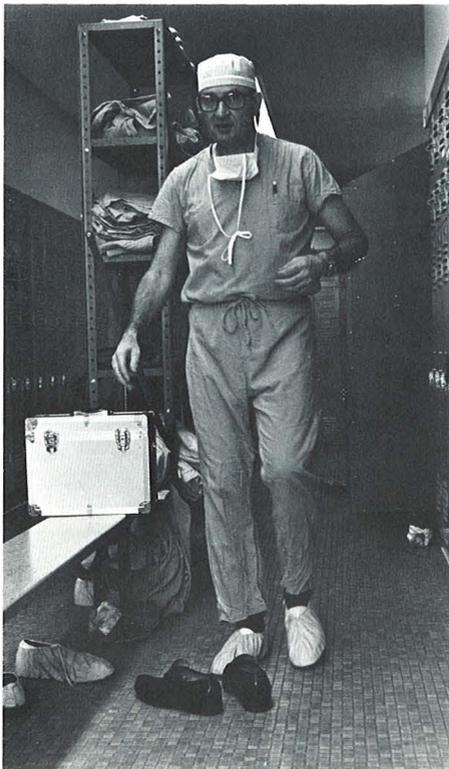
maxilla was removed, along with a vertical section including one tooth on each side (see drawings).

After several weeks of healing, with her jaws wired together, she experienced greatly improved jaw function and – for the first time in her life – tooth closure. Later, additional surgery added a plastic implant to strengthen the contour of her chin, so that today she has a more attractive appearance, too – as the accompanying photographs show.

Recently, the UT Southwestern group led by Dr. Bell has been treating “long-face” victims at the remarkable rate of about 75 per year – with comparably successful results in terms of avoiding relapse and improving functionality.

“We find a high incidence of these people needing treatment,” Dr. Bell points out. “Many such as Chris Caperton, have open bites, and cannot bring their lips together.” This creates not only cosmetic but serious functional difficulties, such as inability to chew many types of foods.

Before her operations, Ms. Caperton typified the “long-face” patient – chin recessed,



Dr. William Bell on the way to operating room.

front teeth and jaw abnormally long, the relaxed mouth remaining open, showing teeth. The common denominator of all these patients, Dr. Bell notes, is a maxilla that's vertically too long.

Until relatively recently, surgeons were reluctant to take the risks inherent in the extensive corrective procedures required to reshape the maxilla. Dr. Bell explains:

“The problem of facial deformities always existed, but the methods were relatively ineffective in treating it no matter what was utilized, until some kind of surgical procedure was introduced to shorten the face. The problem was that people were afraid to do what was necessary to accomplish this.”

While technically possible, so seemingly radical an operation thus involved risks that were too great – until ways were developed to insure the vitality of the bony structures that were being so extensively moved around. Bell continues:

“The big reason why pioneers of maxillary surgery had problems was that there was then no biological basis for what they did. They were afraid of what might happen if they moved the jaw, because it involved working in an area with some significant blood vessels, that are potentially very dangerous.”

When he took his oral surgery training in the 1950's, Dr. Bell said, established procedures for correcting dentofacial deformities were limited in number and “grossly inadequate” to treat the varieties of problems seen. And significantly, none of the existing methods tackled the upper jaw.

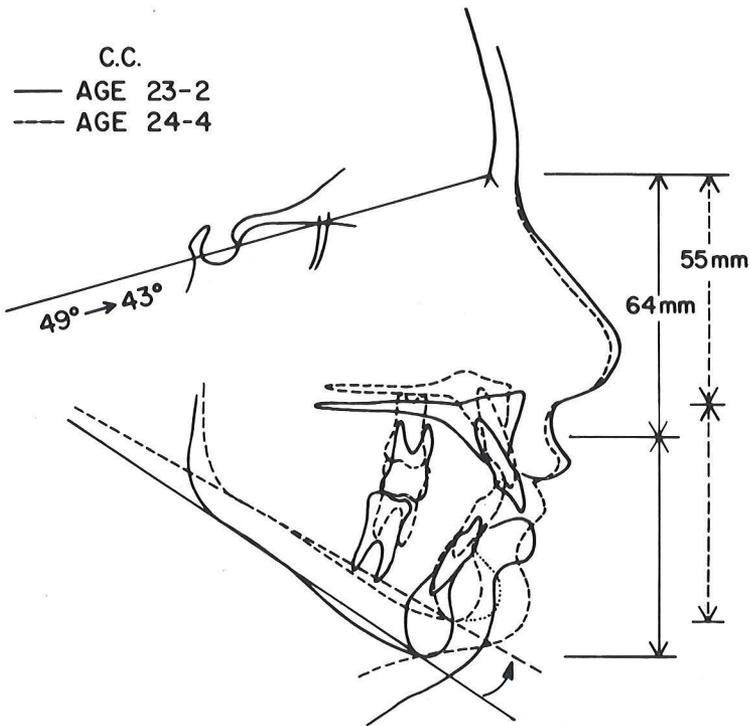
“We didn't operate on the maxilla at all,” he said. “And, because we still did not have sufficient understanding of the underlying biological problems involved, we didn't know why there was relapse. So the results were compromised. There weren't many patients really treated – and those that were treated ended up pretty poorly.”

That situation existed until about 12 years ago. About that time, oral surgery researchers abroad – in Sweden, Switzerland and elsewhere in Europe – introduced new experimental surgical concepts that looked promising. But surgeons in this country remained wary, because of apparent continued inability to move the jaw around the desired amount and the gnawing lack of biologic support needed to insure safety and avoid relapse.

In 1965, while at the University of Texas Dental Branch in Houston, Dr. Bell began experiments with animals attempting to demonstrate that the jaw could be moved about freely and remain viable, healing



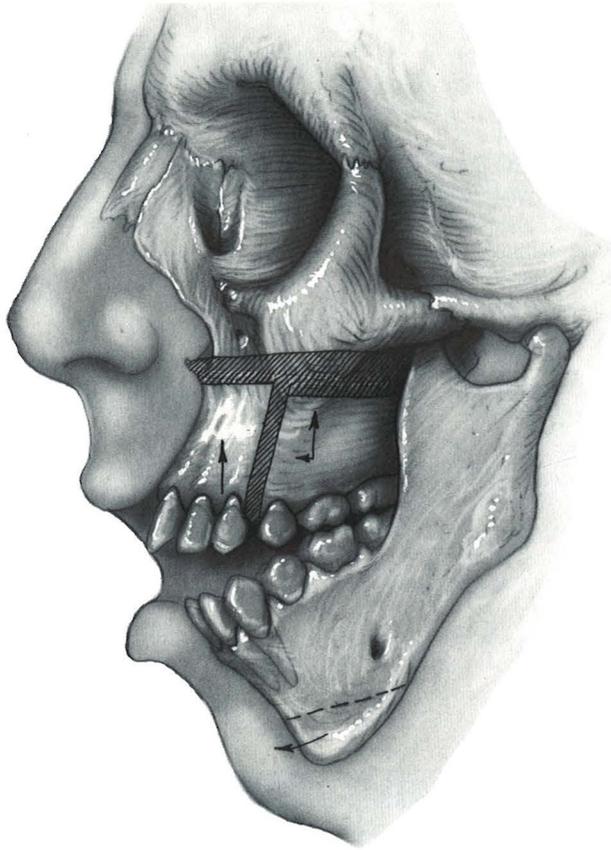
Top: Bell studies X-rays before operation begins; above, right: scenes during surgery.



Superimposed tracings from X-rays show patient's facial contour before and after surgical correction.



without the feared relapse. Those studies were continued after he joined Southwestern in 1972, and in numerous publications he and his collaborators described the surgical steps they found necessary to safely segmentalize the jaw while keeping vital blood vessels attached to maintain viability. These studies showed, Dr. Bell said, that tissue can be safely stripped farther off the upper jaw, allowing that needed extra mobility, and giving surgeons needed visualization of the area — provided tissue of the palate (pedicle) is kept intact, retaining nourishment to



Drawing by Bill Winn shows bone removed (shaded areas) during typical corrective procedure.

teeth and bone.

This allowed surgeons new freedom to design a surgical procedure that was literally tailor-made to correct an individual's problem and for the first time provided access to potential problem areas involving large blood vessels of the upper throat.

Bell said his animal studies established that "keeping tissue attached to these different segments of the upper jaw was the means of keeping bone alive."

Also, the research with monkeys helped surgeons solve in advance the clinical problems related to healing, both of bone and connecting soft tissue, that they'd face with human patients.

The tedious task of determining just how much jaw should be removed required another set of sophisticated answers. Here, X-rays were used as blueprints, and plaster molds — often several sets of them — were cast of the patient's teeth and jaw in order to map out the surgery.

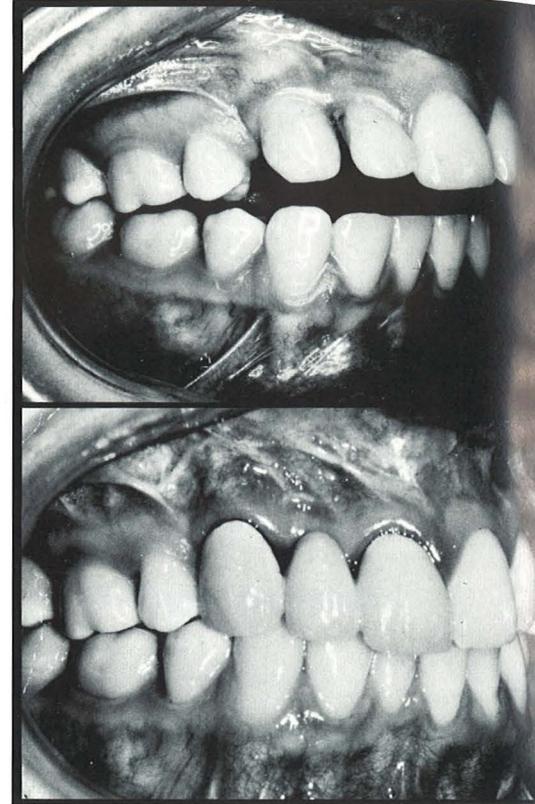
Orthodontics, which plays an important role in correcting many tooth misalignments, is frequently used in conjunction with the surgery required in the more severe cases, Bell noted.

Bell's team also employed a computer to help test surgical results more accurately.

With help of Southwestern computer experts Dr. Jerome Eisenfeld and Dr. David Mishelevich, and oral surgery resident Steve Schendel, a program was devised that can reproduce tracings from X-rays of skeletal and soft-tissue structures of the head on a computer. These computer "drawings" make use of more than 200 reference points on the patient's X-ray to turn out a "picture" of the face. The computer can average the input from many patients' faces and print out or "draw" typical facial profiles, as well as depict in graphic visual form results of past surgery — helpful both to clinicians and as a teaching aid for student surgeons.

In more than 60 journal articles already published, and in a massive upcoming book coauthored with Drs. William Proffit and Raymond White of the University of North Carolina, Dr. Bell is describing to an increasingly interested national and international audience the results of his work. (The new book, titled, "Correction of Dentofacial Deformities" and containing some 1,000 illustrations by UTHSCD medical artist Bill Winn, is due out in 1978.)

"We get about four or five letters, reprint requests and the like, a day wanting information about this kind of work," Bell states. To help others learn about the procedures,



Closeups of teeth show "open bite" before surgery, and normal closure afterwards.

the division of oral surgery has developed "surgical safaris" which periodically bring a half-dozen or so oral surgeons from around the country to Dallas. The visitors observe and assist in the procedures and study results in followup visits on past patients. (Dr. Bell got the idea for the "safaris" after attending a similar program in Spain.)

And through Southwestern's ongoing oral surgery residency program, directed by Dr. Walker, training in the new techniques and experience in performing them is spreading to other treatment centers around the nation. So far, more than 20 surgical residents have completed their studies at Southwestern since the dentofacial corrective program got under way.

Bell emphasizes that the program is the result of a well-coordinated team effort. Others besides Drs. Bell and Walker who make up this group are oral surgery faculty members Dr. Douglas Sinn and Dr. Kevin McBride; orthodontist Dr. Harry Legon, and Dr. Joe Ampil, a maxillofacial prosthodontist who specializes in building facial devices or prostheses needed by patients.

Next February, the group will stage its first annual national symposium in Dallas on correcting these facial problems.

And as the steady process of creating



Before-and-after views of patient Chris Caperton shows how reshaping changed mouth function, appearance.

minor miracles of improved jaw and tooth usage continues, Dr. Bell and his associates are further extending their horizons. Eisenfeld and Mishelevich are at work on the development of computer-produced three-dimensional X-ray "assays" of potential dentofacial patients — a future tool Bell says would be a tremendous assist to the clinicians. And work is beginning on research into the muscle structure of patients with these deformities.

Collaborating in the latter project are UTHSCD cell biologists Drs. Gaylord Throckmorton and William Gonyea; Dr. Bob Eberhart, a bioengineer in the surgery department; computer programmer David Barker, and oral surgeon Dr. Richard Finn. Combining skills from all these specialty areas, the scientists are analyzing differences in muscle structure among various types of facial deformities, seeking to discover how differences in various characteristics such as size, physiological and chemical makeup, electrical activity and blood flow may affect the healing process of patients.

"We're studying groups of patients before they're treated by surgical means, and after they're treated, to determine effects of the surgery on the muscle," Dr. Bell explains. "It's been presumed for a long time that muscles and their biomechanical effects have something to do with relapse associated with different surgical procedures. So we want to try to identify some of these.

"We're tremendously excited about these things." ■



Long surgical procedures over, Bell takes off slippers.

Southwestern Scrap -book

Publication of new history of the school prompts this nostalgic backward look through the images of our past.

The architecture was "henhouse classic." The walls and floors, all of three-quarters of an inch thick, yielded to an occasional chair roller or table leg. And those plywood buildings hastily assembled to house the state's newest medical school "leaned rather informally away from the prevailing winds."

Such was the setting a third of a century ago when Southwestern Medical College sprang into life, recalled in the crisp prose of a history of the school published earlier this year, written by Southwestern's own Dr. John S. Chapman. In the book, entitled "The University of Texas Southwestern Medical School — Medical Education in Dallas 1900-1975" (SMU Press, 128 pp., \$10), Dr. Chapman captures in fascinating fashion the essence of Southwestern's "roots". And it is this trip back to the school's beginnings, and beyond, that prompted the nostalgic "scrapbook" on these and accompanying pages. (Many of the vintage photographs reproduced here also appear in the book.)

An accomplished and recognized historian as well as medical teacher, physician and scientist, John Chapman documented the development of medical education in the Dallas area from its earliest — and shakiest — efforts into the institution of acknowledged eminence that Southwestern is today. From "remote origins" beginning in the late Nineteenth Century, he chronicles the emergence in Dallas of a single medical college after early decades marked by a proliferation of competing and questionable "schools" — some of them no more than second-floor letter drops. ("In return for a letter of intent and a usual fee of fifteen dollars, these institutions conferred their M.D.'s by return post.")

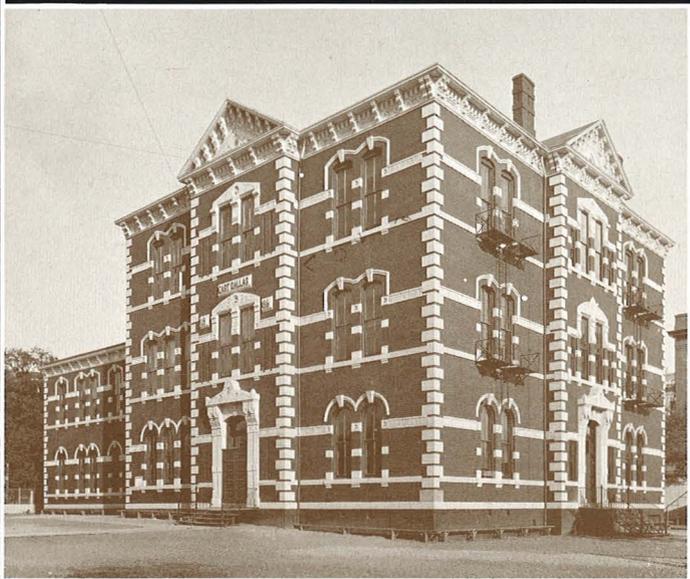
In highly readable style, the author follows the antecedent of present-day Southwestern through its sometimes-turbulent growth: as a local Dallas branch of Baylor University (once, there also was a brief association with Southern Methodist University); then, following the rather traumatic rupture of its Baylor connection (and that school's departure for Houston), as an offspring of the locally-created Southwestern Medical Foundation; finally, as a component of The

(text continues, P. 18)





Southwestern's predecessor, Baylor University College of Medicine, inside and out: At left, an early laboratory scene. Below, Baylor's early home, gingerbread former East Dallas city hall.



JOHN S. CHAPMAN is the ideal choice to chronicle Southwestern's past. An M.A. in English from SMU preceded his M.D. from UT's Galveston medical branch, and Dr. Chapman has pursued lifelong literary interests while also earning distinction as a scientist, teacher and administrator. A medical faculty member since 1952 (following private practice as a chest specialist), he has served in numerous posts including assistant dean. He is past president of the American Thoracic Society and editor of the AMA's Archives of Environmental Health. The Southwestern professor of medicine has written scores of articles and several other books, including *Byron and the Honourable Augusta Leigh*, published by Yale University Press in 1975.

Southwestern Scrap -book

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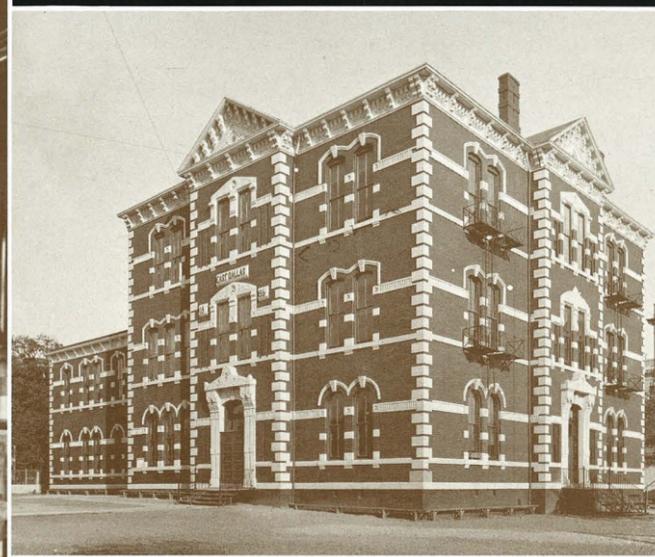
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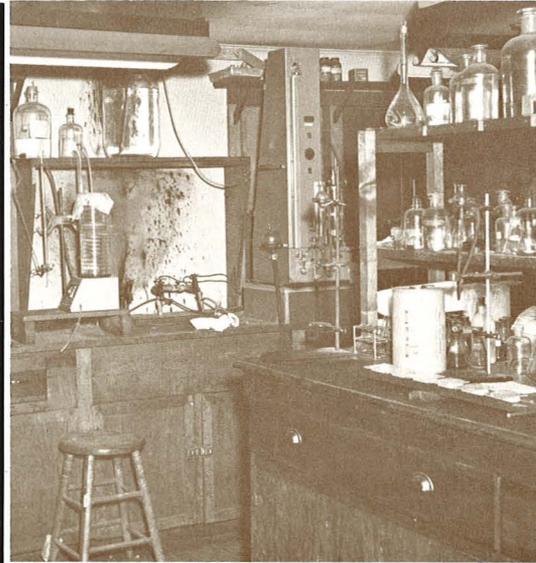
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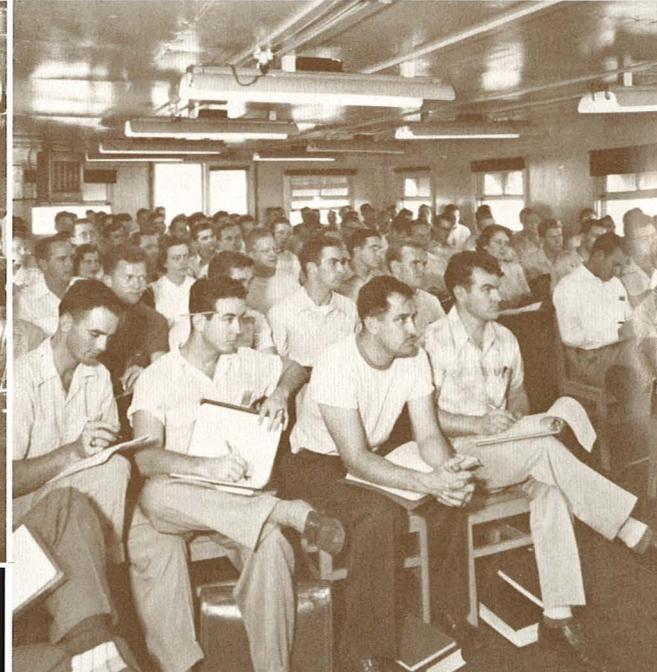
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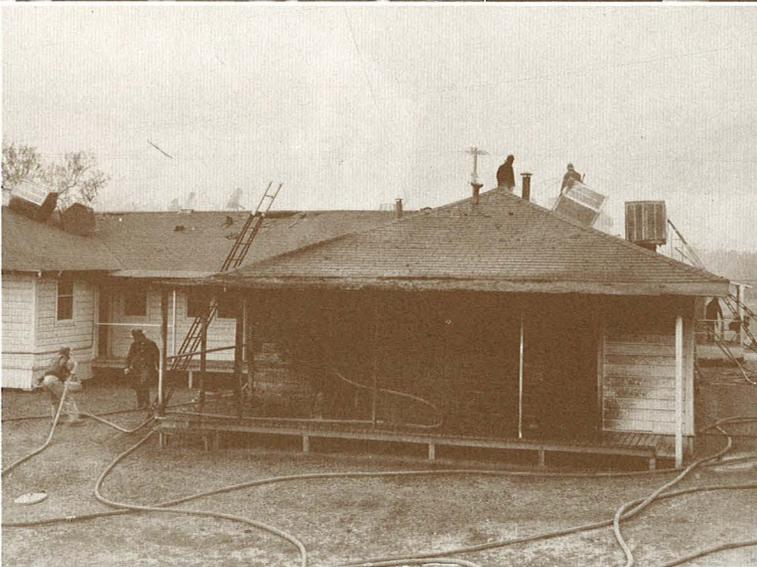
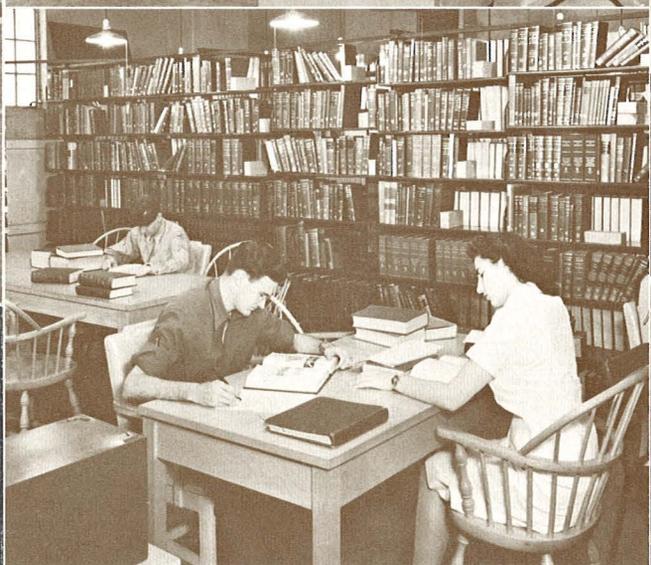


Left: From nearby railroad embankment, school in '40s looked like this. Above: "Prefab" shows signs of wear by early '50s. Above right: med school library periodical area, 1952. (In photo at far left, Violet Baird; at right, Eunice Dennis). Right: earlier library view at 3705 Maple, in May, 1945.



Above: makeshift lab of Southwestern Medical College. Right: typical lecture scene in "shack" used 1943-55.





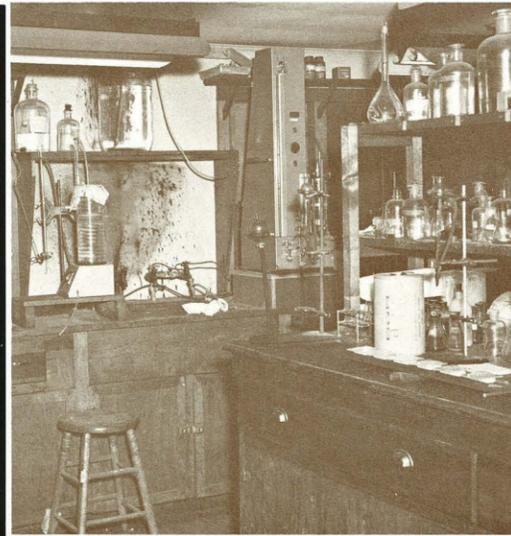
Above: Some of original faculty of Southwestern Medical College in formal portrait. From left, Charles G. Duncan, George T. Caldwell, Joseph T. Hill, Robert W. Lackey, Dean Donald Slaughter, Lewis Waters, Herbert C. Tidwell, MacDonald Felton and W. W. Looney.

One recurring problem was that the shacks weren't fireproof.

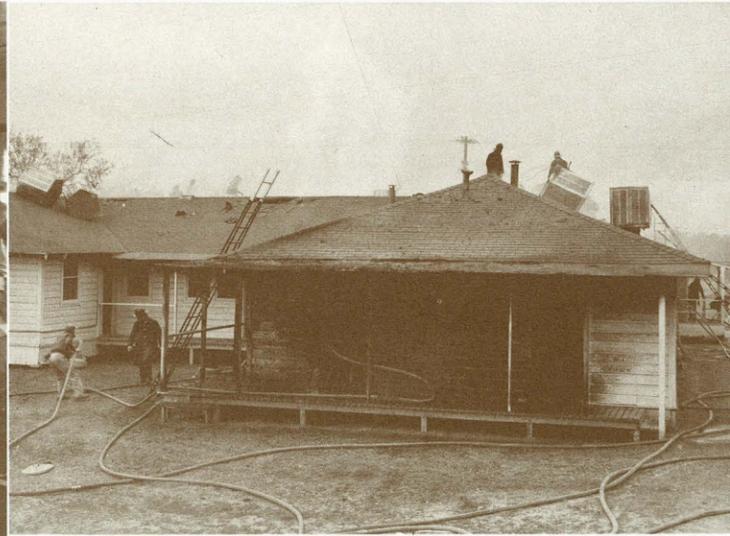


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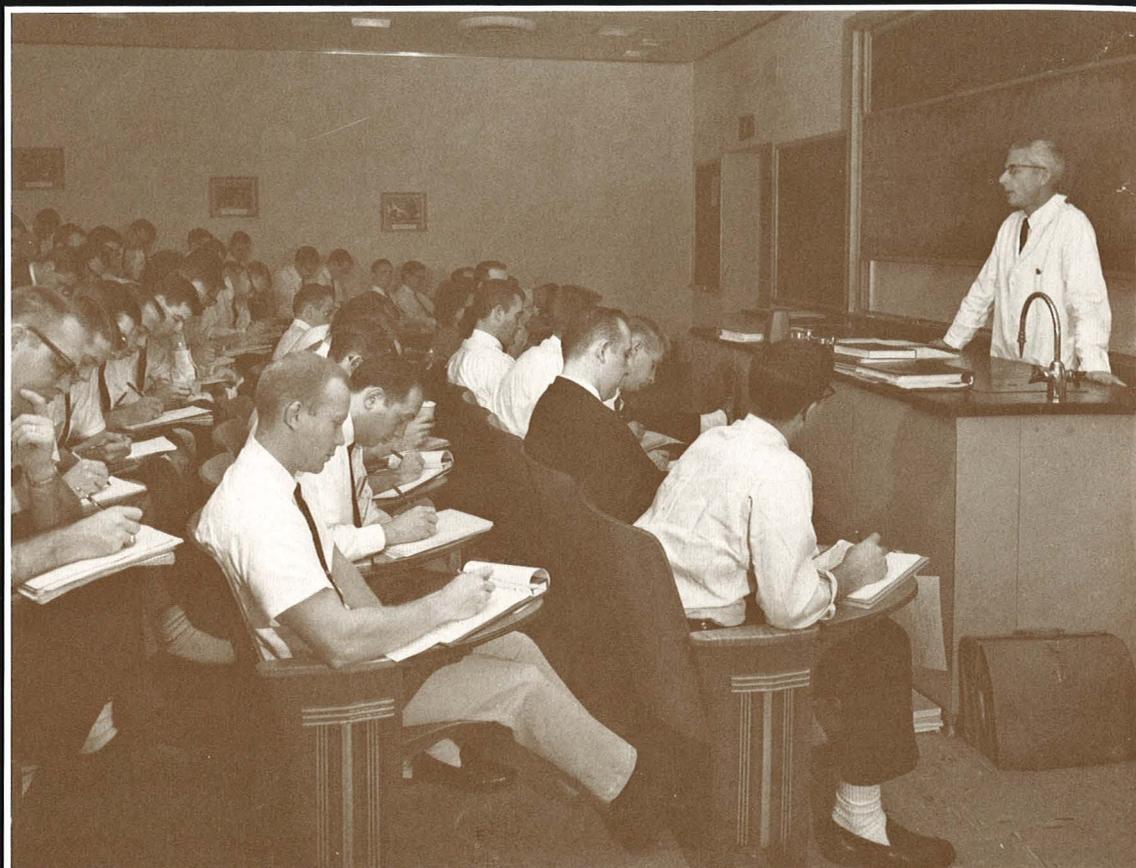
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University of Texas, with its subsequent development in the 1970s as the fulcrum of a modern center for studying health-related disciplines.

Dr. Chapman's narrative describes some alternately challenging and frustrating times. Foremost among the problems were a chronic financial anemia, and difficulties associated with woefully inadequate physical facilities. He charts the early growth of the medical faculty — talented, motivated, possessing an apparent adventurous spirit that was somehow perversely challenged by working in a setting that only a top-sergeant could love. (That spirit was, however, in no way unanimous; a number of early faculty and administrators found the going too tough and bailed out).

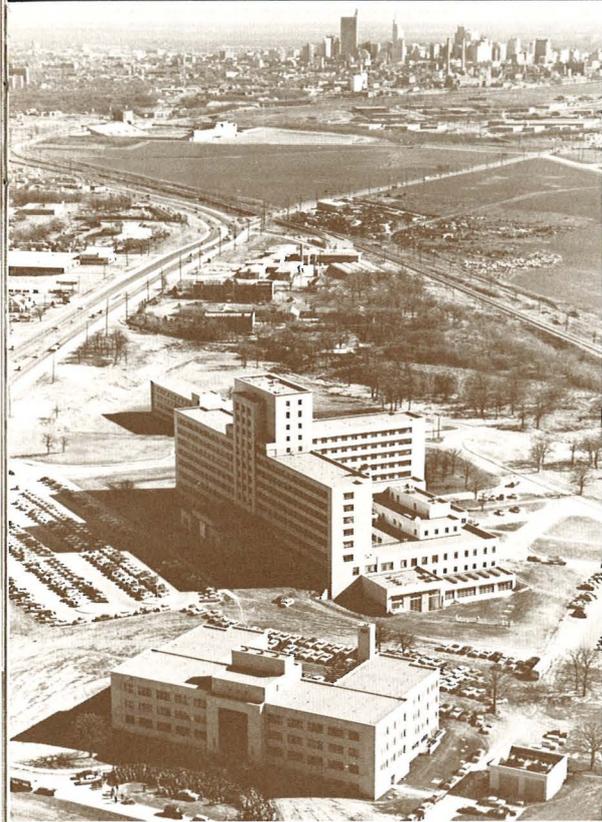
Once, soon after joining UT, the school squeaked through a fiscal crisis that almost ruined plans for a desperately needed permanent home. When bids came in \$100,000 above the appropriated \$2.75 million for the Cary building, regents were ready to shelve construction. But then dean George Aagaard made an 80-mile-per-hour wee-hours dash back to Dallas, got quick commitments from members of the Southwestern Medical Foundation and was back in Austin by noon the next day with promises of the needed cash. "The midnight ride of the dean and the foundation's prompt response," Dr. Chapman wrote, "had saved at least six months and assured construction of the first building."

He recalls marathon wartime years, lean days in those unloved plywood huts with their propensity to sag,

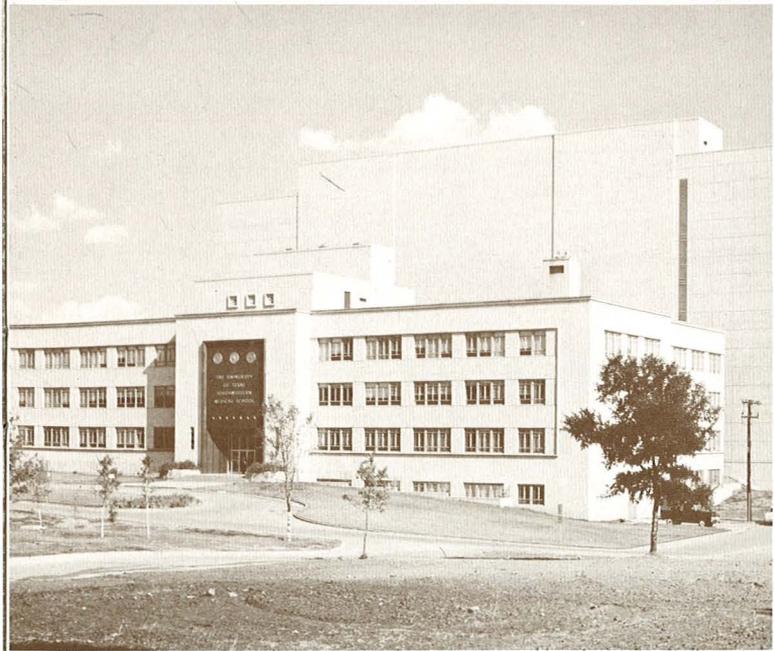


At dedication of Hoblitzelle building in 1959, are (from left) Dr. Logan Wilson, University of Texas president; school benefactors Karl Hoblitzelle, Fred Florence.

Left: crew-cuts label this as a scene from '50s, in Cary lecture hall. Dr. Robert Pike is the lecturer.



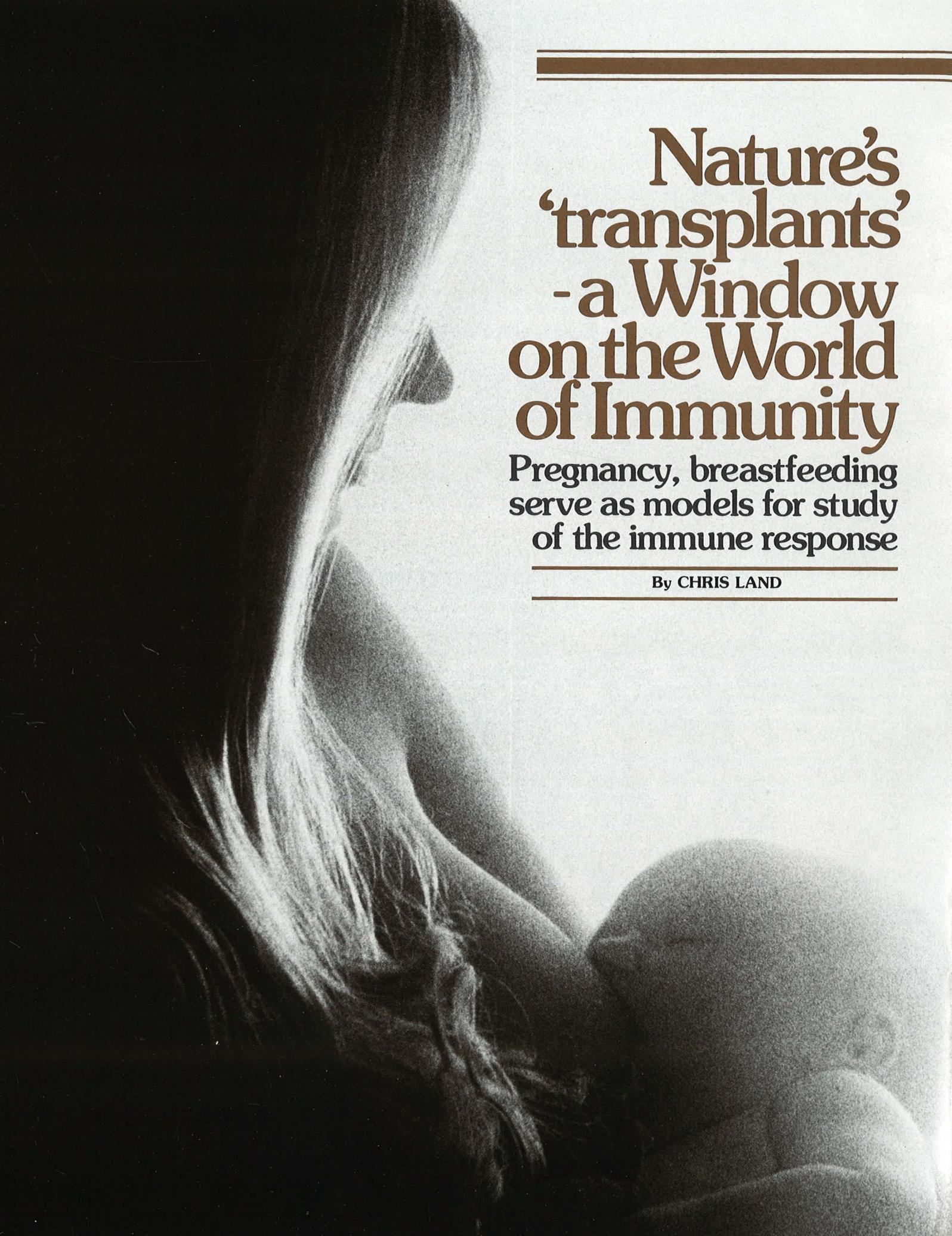
Left: dedication ceremonies for Cary building are in progress in this aerial view early in 1955. Note wide-open spaces between Parkland and downtown. Below: by mid-60s, Danciger and Hoblitzelle buildings have been added.



How things looked from ground level in late '50s, when school consisted of Cary, Hoblitzelle and many young trees.

puncture and, occasionally, erupt into flame. He sketches vividly the principal personages in the formulation of the school, strong personalities whose interaction – and occasional collision – shaped an institution that now stands among the giants of medical education. Early on, we meet Dr. E. H. Cary, the prime mover and doer. And many other names spring from the pages – Moursund, Harrison, Hart, Aagard, Florence, Hoblitzelle – and later, Gill, Sprague, McDermott, Jonsson, Green, Aston, MacGregor, to name only a few.

Throughout the book, Dr. Chapman skillfully weaves the events in the school's unfolding chronology into a fabric of historical context. He often pauses in the narrative to relate those events to the times in which they occurred, assessing impact of social, technological, political and economic changes on the emergent fortunes of a fledgling medical college. In his foreword, Dr. Chapman remarks that the history is intended to be "more than a record of local events, names and dates . . ." Indeed it is, much more. For his perceptive, candid and sometimes wry commentary, together with extensive notes and appendages, add up to a historically significant and useful document that's also enjoyable to read. — JOHN WEEKS



Nature's 'transplants' - a Window on the World of Immunity

Pregnancy, breastfeeding
serve as models for study
of the immune response

By CHRIS LAND

IN 1966 Dr. Rupert E. Billingham, by then a well-known transplantation biologist, was invited to lecture at a meeting of the American College of Physicians. The invitation gave him a full month's notice but only 24 hours to submit a title for his lecture.

"I wondered whether I should play it safe and talk about transplantation or try to prepare something different," recalls Dr. Billingham, now chairman of the Department of Cell Biology at The University of Texas Health Science Center at Dallas.

"I decided to take a chance and selected 'The Maternal-Fetal Relationship from the Viewpoint of Transplantation' as my title."

At the time, medical researchers were just beginning to recognize that pregnancy can be regarded as a graft-host relationship, like that of an organ transplant, but the phenomenon was yet to be studied.

"Preparation of the lecture took me into much new territory, including reproductive biology, about which I knew very little," the Oxford-educated scientist says. "And I had to go more than knee-deep into problems of obstetrics and gynecology.

"But it was rewarding because this particular field of research had been almost totally neglected."

Dr. Billingham's lecture and an article that subsequently appeared in the *New England Journal of Medicine* generated a large amount of interest. He received many invitations to attend conferences and give seminars on the subject around the world.

The following year he met Dr. Alan Beer, a brilliant young resident in obstetrics and gynecology at the University of Pennsylvania. After completing his residency, Dr. Beer joined Billingham and the pair became actively involved in research in this new field.

Dr. Beer, now professor of cell biology and associate professor of obstetrics and gynecology at UT Southwestern Medical School, is one of a new breed of MDs fully trained in both the clinical and basic sciences who continue to "play both games"—that is, he continues practicing as an obstetrician-gynecologist while at the same time teaching and running a research laboratory.

Beer and Billingham's unique partnership over the last 10 years has produced significant contributions to a number of different biomedical fields, including the rapidly advancing field of immunology. In fact, transplantation has turned out to be really just a highly productive subspecialty of immunology.

As the Dallas researchers explain in their definitive book "The Immunobiology of Mammalian Reproduction" (published last year by Prentice-Hall), it is the immune response that determines whether a host's body rejects or tolerates a tissue graft. When rejection occurs, the immune system's principal defensive weapons — the white blood cells — recognize transplanted tissue as foreign and attack and destroy it, just as they attack invading bacteria and viruses.

Paradoxically, in some not yet fully understood manner, the mother's immune system recognizes the fetus as a foreign tissue graft but does not attack it. Because of this Beer and Billingham often refer to the fetus as "nature's most successful transplant."

The fetus is genetically foreign to the mother because half of its chromosomes are inherited from the father. The chromosomes contain tissue compatibility or, in scientific terms, "histocompatibility" genes which determine the offspring's tissue antigens. (Tissue antigens are molecules located on the surface membranes of cells which enable the immune system to distinguish "self" from "non-self.") Although the fetal tissues have antigens from the father that are foreign to the mother, they are almost never attacked by the mother's immune system like a genetically foreign kidney or heart transplant would be.

"IF we could learn more about the mechanism that ensures the success of the fetus, we might be able to apply the same principles to improve the success rate of replacement organ transplants," says Dr. Billingham, a former research associate of Nobel Laureate Peter Medawar and immediate past president of the Transplantation Society, a worldwide association of transplantation biologists and surgeons.

In the course of their studies of the immunology of pregnancy the Southwestern researchers accidentally discovered another example of naturally occurring

transplantation. They found that millions of living white blood cells are transplanted from mother to infant during breast-feeding.

"We were performing experiments that involved grafting skin from infant rats onto their mothers," recalls Dr. Beer. "A significant number of suckling infants began to experience peeling or scaling of skin about the same time that the mother was rejecting the skin graft."

SINCE the only connection between the babies and the mother at that stage was the mother's milk, the scientists hypothesized that white blood cells programmed by the mother's body to attack the foreign skin graft placed on her also were being transferred during suckling to the infants, where they attacked the infants' skin and caused the "scaling."

The researchers believe that in humans the white blood cells transplanted during breast-feeding may provide immunity to certain diseases during the baby's first few weeks outside the womb, while it gets its own immunologic defense machinery in gear. This temporary resistance to disease is based on the mother's prior experience with illness-causing organisms. In effect, the baby is "borrowing" the mother's immunity.

Drs. Beer and Billingham say that the recognition that mother's milk provides immunity in some animals "is almost as old as immunology itself." But until recently most scientists believed that in humans the transfer of maternally produced immunities was performed exclusively by the placenta, the organ joining mother and fetus during pregnancy. In fact, not too long ago, the presence of white blood cells in human milk was considered to be a sign of recent infection of the mother's breast.

In further studies the researchers and their associates, Drs. Judith Head and Michael Parmely, tested the mother's milk of a number of mammals, including humans, mice, rats, hamsters, guinea pigs and even bushbabies (nocturnal, lemur-like animals of the African forest). All of the tests showed that mother's milk contains large numbers of white blood cells.

The cells may provide the human infant with immunity to several common intestinal diseases. One such disease is necrotizing enterocolitis — an intestinal infection associated with a breakdown of the lining

UTHSCD studies of the fetus as a 'natural transplant' lead to improvements in maternal health and quality of life for the very young.

of the gut. It causes death in a significant number of human babies each year. "There is increasing clinical evidence that breast-fed babies are protected from intestinal disorders and infections such as necrotizing enterocolitis while bottle-fed babies are left unshielded," Dr. Beer says.

"We now know," he adds, "that the immunologic function of the breast is as complicated as that executed by the placenta."

BECAUSE of the great number of "antibodies" — the immune system's other main defense weapon — which the infant receives while still in the womb, the placenta is still considered to be the principal route of transmission of maternal immunity in humans. But the breast performs a function which the placenta may have found too dangerous to perform: the transfer of large numbers of white blood cells.

"It's tempting to view the breast as the 'second placenta' because it provides nourishment and protective immunity for the infant during that very vulnerable period when the newborn is first exposed to the germ-contaminated environment in which it must live," Dr. Beer says.

It is estimated that fewer than 15 percent of American mothers breast-feed their babies. "It's rare when a mother cannot nurse her baby," Dr. Beer says, "she just needs proper encouragement and training." In their book, the Dallas scientists conclude that available evidence suggests the need for "a revision of the tendency of modern society to regard breast-feeding as an activity associated with peasants and barnyard animals."

Beer and Billingham's new insights into the immunologic superiority of breast milk are just a few of the many spin-offs that have resulted from their 10-year study of pregnancy as a model of immunity. This on-going study was recently given a boost when Dr. Beer received a \$400,000, four-year grant from the National Institutes of Health to research "Immunoregulation of Mammalian Reproduction."

"The normally successful development to term of the mammalian fetus as a genet-

ically foreign 'graft' in the uterus remains one of the most enigmatic phenomena in transplantation immunobiology," Dr. Beer wrote in his grant proposal to NIH.

The fetus is consistently successful in violating the "laws" of transplantation because somehow it remains indifferent to the maternal immune response. It has been proven that this indifference is not due to the partial correspondence of fetal and maternal genes. (As noted earlier, it is the genetic differences between host and donor that lead to rejection of transplanted organs.) Animal experiments show that skin grafts from the fetus and from the offspring at any stage after birth are routinely rejected by the mother.

The mechanism which protects the fetus is thought to be associated with the placenta. "The fetus is quarantined in a fluid-filled sac, the amnion, and the only connection it has with the mother is the placenta," Dr. Billingham explains.

The "frontier zone" of the placenta, where the cells of the mother and fetus meet, is called the trophoblast. The fetus survives because these particular cells do not provoke a harmful immune response. "The trophoblast cells are protective cells — a 'suit of armor' against assaults by the mother's immune system," Dr. Billingham says.

Investigators recently have learned that the mother's body fails to recognize the trophoblast cells as foreign because her immune system produces special "blocking" antibodies. "These harmless antibodies seem to mask or coat the foreign antigens on the fetal tissue, rendering it 'a wolf in sheep's clothing,'" Dr. Beer says.

THIS complex immune mechanism may provide the key that transplantation biologists and surgeons have been searching for: a way to overcome rejection in organ transplantation. "There is a very real hope that if we could understand the trophoblast cells it would lead to a method of preventing the rejection of transplanted organs," Dr. Billingham says.

The immunosuppressive drugs currently used in attempts to overcome rejection

have a life-threatening side effect — they leave the patient almost totally unshielded from potentially lethal germs. In contrast, a method of preventing rejection based on the trophoblast mechanism would not have this drawback, because the pregnant female's immune response is weakened only to those foreign tissue antigens contributed by the husband. Dr. Beer explains, "The fetus' immunological truce with the mother pertains only to the father's antigens and the mother remains for the most part fully capable of responding against intruders such as viruses and bacteria."

Sometimes the complicated protective mechanism fails and the fetus is attacked by the mother's immune system, just like any other tissue graft with foreign antigens.

PROBABLY the most familiar example of this is the disease produced by Rh incompatibility, which occurs when a mother who is Rh-negative bears children who have inherited the Rh antigens from the father. Rh antigens are located on the surface membranes of red blood cells. Although there is no direct connection between the maternal and fetal blood-streams, small numbers of red and white blood cells do cross the placenta in both directions.

In Rh disease the passage of Rh-positive fetal red blood cells into the maternal bloodstream stimulates the mother's immune system to produce anti-Rh antibodies. Some of the antibodies cross the placenta and attack the fetus' red blood cells. Usually it is not until the mother's second pregnancy that enough antibodies are produced to make the disease fatal to the fetus.

In a series of experiments conducted in their laboratory at the Dallas health science center, Drs. Beer and Billingham demonstrated that mother rats can be stimulated to produce white blood cells that will attack the fetus, often resulting in death or runt disease. The researchers feel it is possible that human fetuses which die of undetermined causes and newborn babies who do not thrive may be the victims of a similar "infection" produced by their mother's white blood cells.

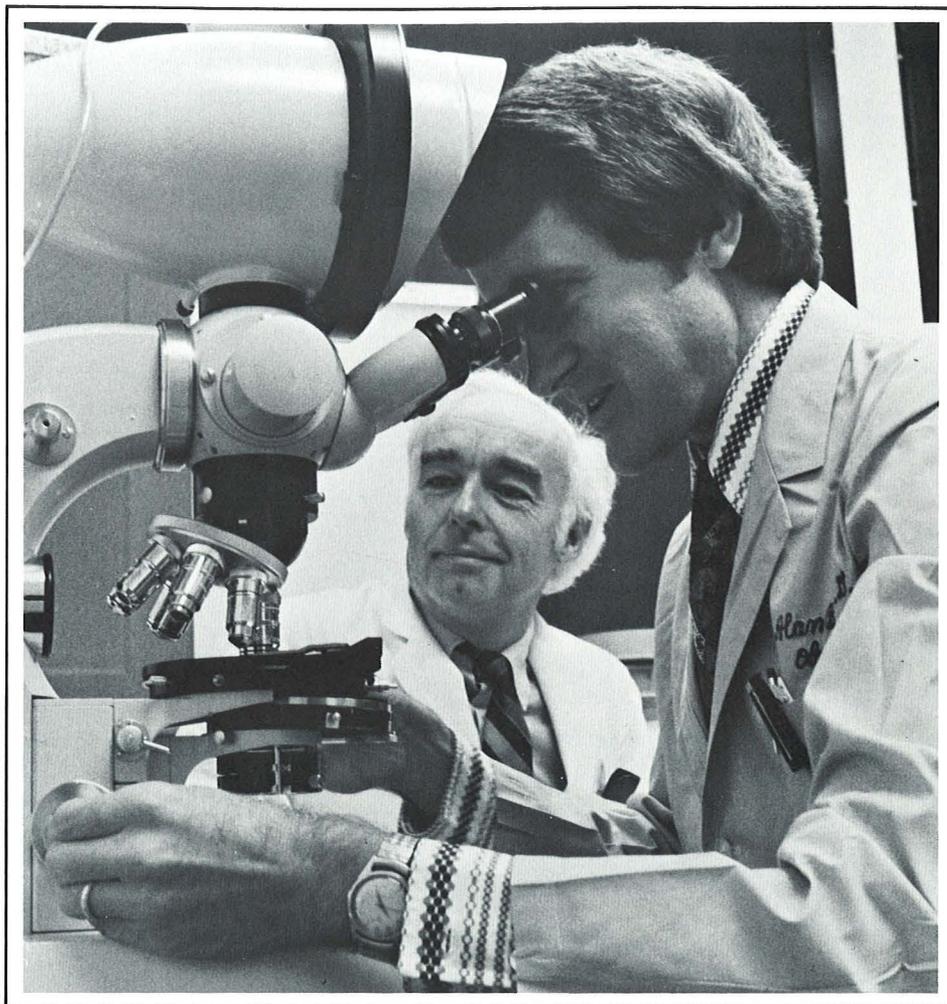
Failure of this complex immunologic relationship can be just as devastating for the mother as it is for the unborn baby. When the specialized trophoblast cells become malignant, their invulnerability to

the maternal immune response gives them an extraordinary power to spread cancer throughout the mother's body. Cancer of the trophoblast, or choriocarcinoma as it is called, is almost always fatal because the mother's body is incapable of defending itself against it. (Cancer researchers now believe that malignant cells are constantly being produced by the body but that they are normally recognized by the immune system as "foreign" and destroyed. Cancer results, the theory goes, when the immune system fails.) "It may be that many cancers are caused by malignant cells that have learned the tricks of the trophoblast in order to escape destruction," Dr. Beer speculates.

While genetic disparity of the host and donor makes it more likely that an organ transplant will be rejected, the opposite is true in the unique graft-host relationship of the fetus and mother. Genetic incompatibility improves the chance of the fetus implanting and gives the established fetus a growth advantage. "Our studies with rats, mice and hamsters have demonstrated that the more diverse the genetic backgrounds of the father and mother, the larger the litter will be and the larger the babies," Dr. Beer says.

In humans, chance compatibility between marriage partners may cause fertility problems and repeated natural abortion. "There are quite a few infertile couples where there apparently is nothing wrong with the reproductive organs of either the husband or wife," Dr. Billingham says. "We feel that in such cases infertility may be the result of the two individuals being too closely compatible."

ONE way to tell whether or not the tissues of two individuals are compatible is to take white blood cells from both and mix them together in culture. If the cells attack and kill each other, the tissues are incompatible. Dr. Beer says tests have shown that there is no such immune reactivity between the white blood cells of a statistically significant number of couples experiencing spontaneous abortions. These couples, it seems, are genetically very similar and the presence of the fetus in the mother's uterus fails to stimulate the protective immune response, thus abortion occurs. Beer and Billingham say that recent animal experiments they have conducted indicate it may be possible to enhance the repro-



Drs. Rupert Billingham, left, and Alan Beer in their lab.

ductive performance of an infertile woman by injecting white blood cells from her husband into her uterus and in this manner induce an immune response.

Another potential spinoff of continued research in this area is an immunologic means of birth control. Conception normally begins with "inoculation" of the female with sperm from a male donor not genetically related to her. Transplant antigens are located on the surface membranes of the sperm, so they have the potential for eliciting an immune response. Researchers are attempting to exploit this potential and develop an effective means of sensitizing a woman to her mate's sperm. These experiments continue with increasing sophistication and "contraception by vaccination" may be a reality in the near future.

Investigators also have discovered that the same genetic locus that determines

tissue compatibility—the "major histocompatibility complex"—also determines susceptibility to a number of diseases. Thus people with certain tissue types have a greater risk of contracting the diseases. Such knowledge provides physicians with an important advantage in disease diagnosis and genetic counseling.

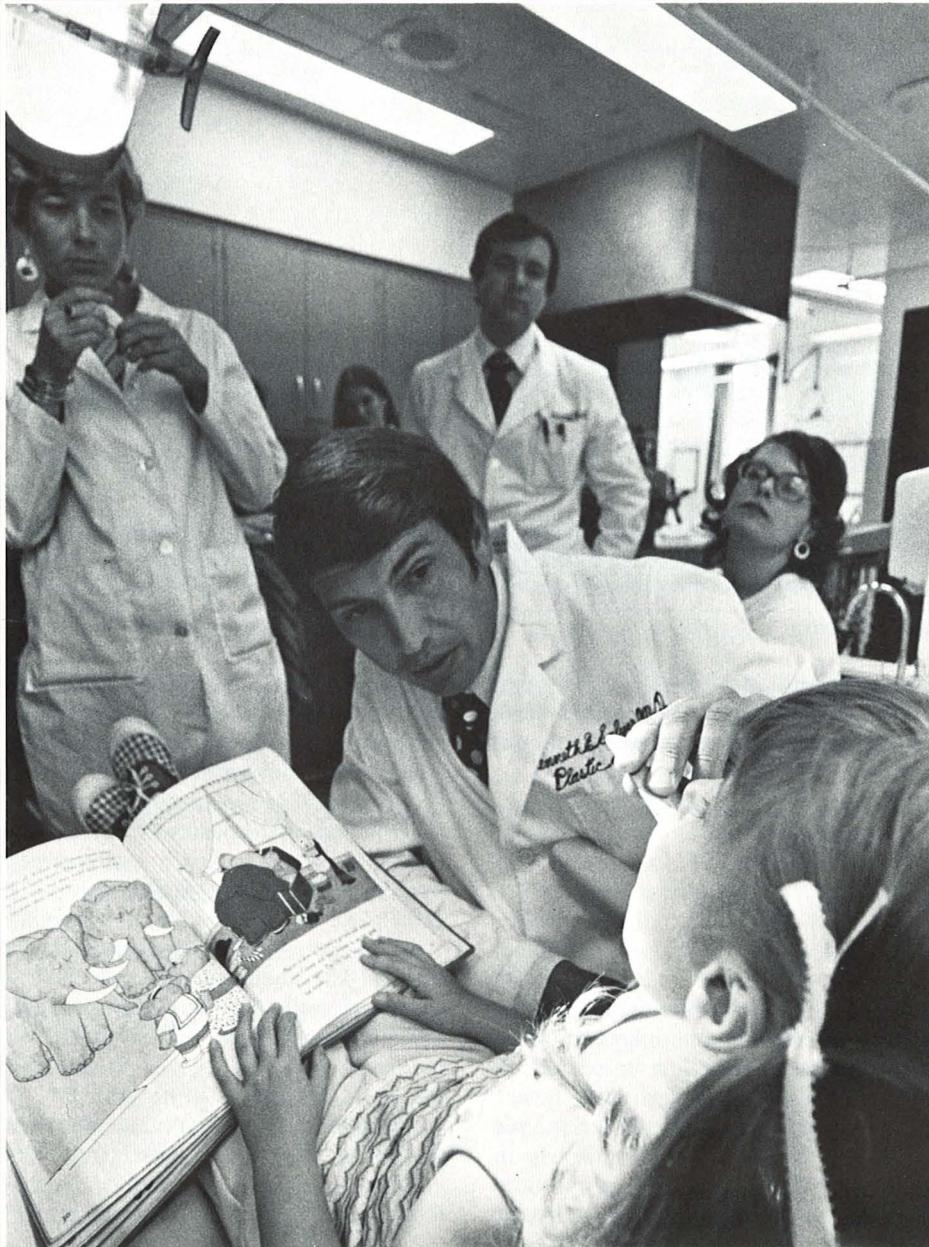
"NONE of us working in transplantation 20 years ago had the slightest idea that what we were playing with was really the tip of the iceberg," Dr. Billingham says. "The subject has burgeoned because people in medicine who have no interest in transplanting organs whatsoever are very interested in the genetic locus that controls rejection."

"I, for one, am surprised and not a little awed by the tremendous breadth of knowledge that has emerged from the simple grafting experiments begun a few decades ago." ■

Team Easing Problems for Cleft-Palate Child

It's not easy, growing up with this handicap. But UTHSCD specialists pool talents to help youngsters and parents achieve normal life.

By ANN HARRELL



Dr. Peter Sherrod, cranial-facial clinic coordinator, watches with other team members as plastic surgeon Kenneth Salyer examines a young patient.

MYRA Davis (not her real name) swallowed hard when her obstetrician broke the news that although fine in all other ways, the Davises' new baby girl had been born with cleft lip and palate. He wanted to prepare them before they saw the child.

After the initial shock, Myra later told a friend, it wasn't so bad.

"After all," Myra, 28 and having her "first," thought, "it's not as if doctors today can't do something about it. I knew there was an operation . . ."

What Myra didn't realize — and what the obstetrician did not prepare the Davises for — was the multiple related health, psychological and educational problems that were to arise for little Jenny in the coming years of her childhood. They did not know that cleft lip, often cruelly called "harelip," is a defect often associated with a host of other medical, surgical and dental problems.

According to Dr. Peter Sherrod, assistant professor of pediatrics at The University of Texas Health Science Center at Dallas and coordinator of the craniofacial clinic at Children's Medical Center, the child with cleft palate often needs specialized medical care, dental attention and help from experts in other areas, such as speech and hearing therapists. Physical conditions associated with cleft palate may include other facial structural problems which, while not necessarily making the child unattractive, may contribute to health problems, he said.

This child may be more prone to allergies and infections of the tonsils, adenoids and ears, which may lead to loss of hearing. He or she may have speech impairment and develop digestive or nutrition problems as a result of the inability to chew food properly due to a "bad bite." The child may have vision problems as well as dental problems, requiring braces or oral surgery. Also, unless the cosmetic problem is minimal, there may be psychological problems for the child to cope with.

There are other hardships, too.

Even when medical and dental care is readily available, the family may find themselves caught in a maze of specialists, each treating one particular health problem. But the specialist is unable to

make referrals on related ills or even answer the parents' questions not pertaining directly to his or her field. If the family is poor, they may not even know where to go for the most help.

Growing up is never easy. And to a child with multiple aesthetic and physical handicaps and frequent illnesses, it's even harder. As with many other illnesses and diseases, families such as the Davises often find the problems of the child affect everyone in the home.

Parents can get easily discouraged with the extra care needed by a sick child, the mounting bills for medical and dental care and the added emotional burdens. The other children may resent what they interpret as special attentions given to youngsters like Jenny. Thus, the child's problems may become, as sociologists say, "a family problem" with resulting unhappiness for everyone. The resulting tensions may turn this home into a battleground with wars being waged on all sides.

Another "battleground" Jenny will have to face is school. Bad experiences with other children who point and laugh have probably already affected her self-esteem. If she feels disfigured, she may become shy and retreative. If she is absent often, either from physical problems or from pretended illness due to her inability to cope, she may fall behind in her work and then feel "dumb." If she gets sick easily, her activities, including attending school and playing with other children, may be drastically curtailed and she may first feel lonely, then unlikeable. Soon she will be literally left behind and left alone.

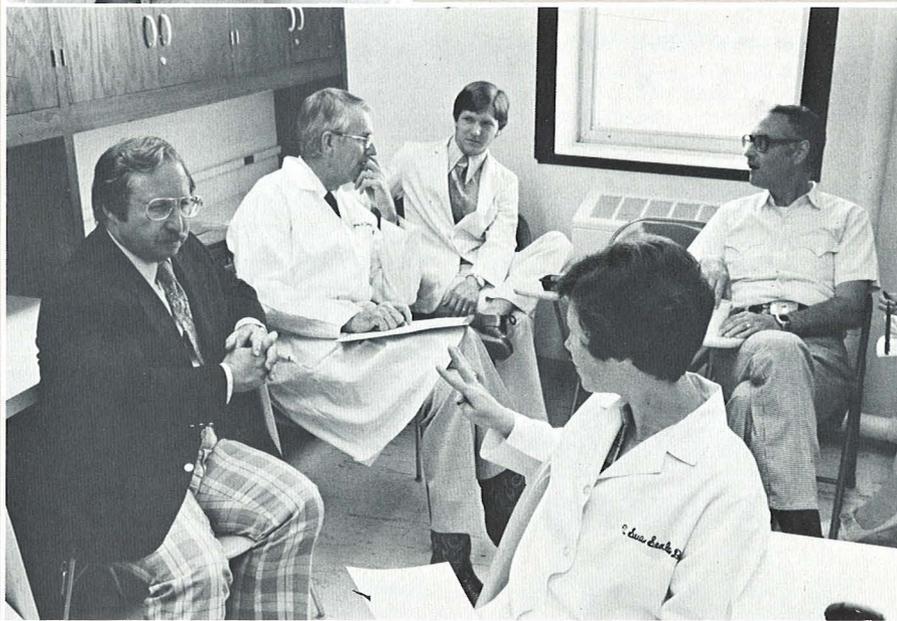
Luckily for Jenny, her pediatrician was aware of the work of the craniofacial team, as well as the operations on children performed by Dr. Kenneth Salyer, professor of surgery, also at the health science center's Southwestern Medical School, and prime mover in the organization of the team. Dr. Salyer is a pioneer in craniofacial surgery — surgery involving the jaws, hard palate and soft palates, pharynx, skull, bones of the cranium, bony orbits, eyelids, tear-duct system, air pathways, sinuses and related areas.

Dr. Salyer has developed one of the few craniofacial teams working together to attack these complex problems. One

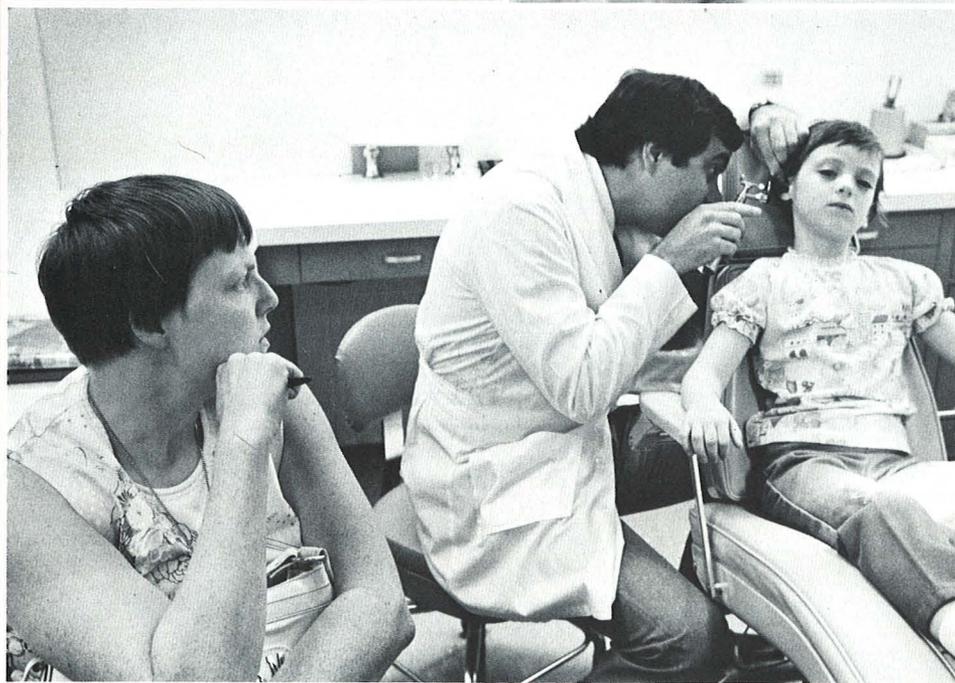
Photography: Dan Barsotti



Left: Social worker Libby Hunter observes testing by speech pathologist. Below: Team discusses case following examination. Bottom: Sounding different words is important to speech pathologist Fran McEwen's preliminary exam.



Top of page: McEwen holds a little girl's nose while she speaks to test for nasality. Lower photo: Dr. Sherrod checks for a pediatrician's view while child's mother watches.



of only five in the United States and Canada, this team helps patients through the potentially confusing maze of specialists.

The craniofacial team, under the leadership of Dr. Sherrod, a pediatrician, is made up of representatives from his specialty and others including plastic surgery, otolaryngology, ophthalmology, neurosurgery, speech pathology, psychology, social work, nursing, audiology, orthodontics, pedodontics, prosthodontics, radiology and genetics. Also immediately available for consultation to the team are a variety of other specialists affiliated with Children's and the health science center.

"The team sees children (and adults in other clinics) with congenital and/or acquired craniofacial defects resulting in malformations of the head, eyes, nose, ears, jaws and mouth," Dr. Sherrod related. "These defects are often accompanied by other major problems, such as speech and hearing disorders, difficulties in chewing and other various visual defects. And any one or a combination of these problems can be emotionally traumatic to both the patient and the family. One of the strengths of the team approach, the team coordinator stressed, is that "we are dedicated to treating *all* aspects of the problems associated with craniofacial disfigurement.

"Furthermore," he continued, "modern care of these complex medical, dental and psychosocial problems is best managed by such a team of specialists. While our team is working together cooperatively, we have but one common goal: to help these patients like Jenny achieve their maximum capabilities and become happy, fit and productive persons."

All the specialists are involved in diagnosing and evaluating each case to determine how their particular areas can help the patient in solving his or her special problems. Dr. Salyer emphasized that their input is invaluable in planning surgical procedures as well.

"As a team we also need to gather as much information about the patient and his or her physical deformity as possible. We also need to know as much as possible about the child's environment which has incalculable influence on

Opposite page, top: Dr. Donnell Johns, speech pathologist, discusses the structural problem with plastic surgeon Dr. Salyer and a dentist who works with the team. Below: Orthodontist Dr. E. R. Genecov of Dallas' Baylor College of Dentistry and Dr. Paul Taylor, chief of dentistry at Children's and Baylor's chairman of pedodontics, discuss child's dental problems while medical student listens.

physical problems and/or illnesses," said Dr. Sherrod. Craniofacial centers using the team approach have been in existence in the U.S. and Canada for only six years. And even today Southwestern's clinic is one of only five.

The other four also are at large research centers — the University of Toronto Hospital for Sick Children, the University of Philadelphia, the University of Virginia and New York University Hospital.

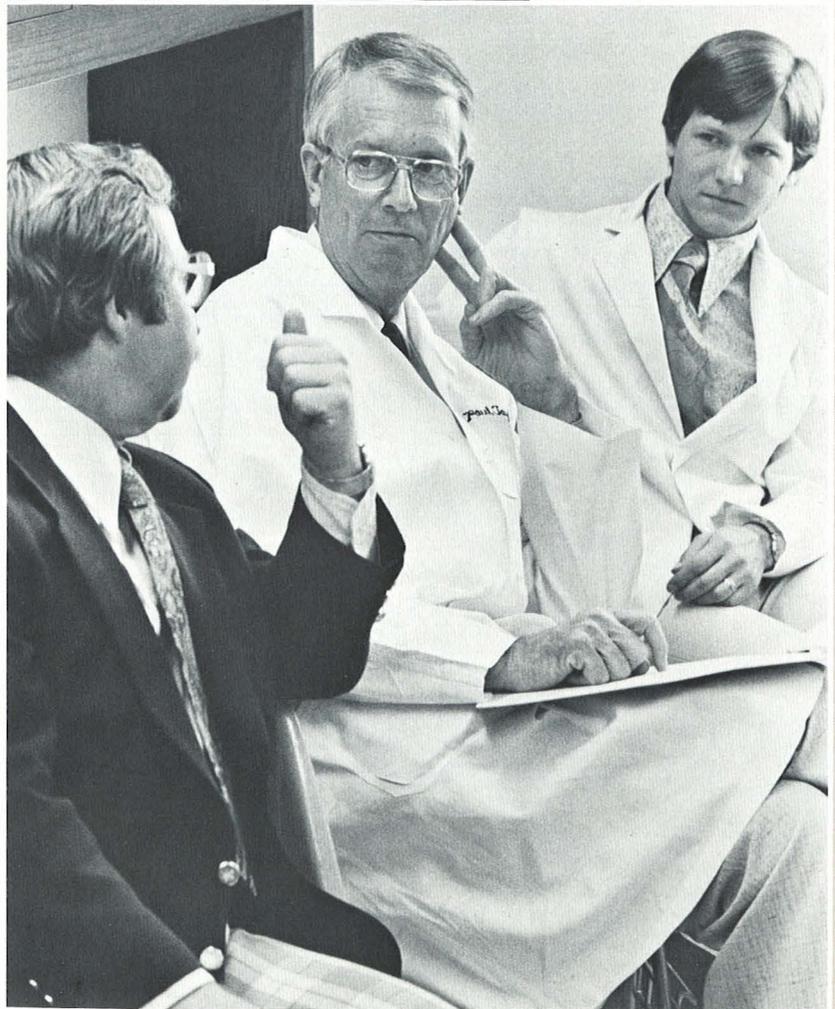
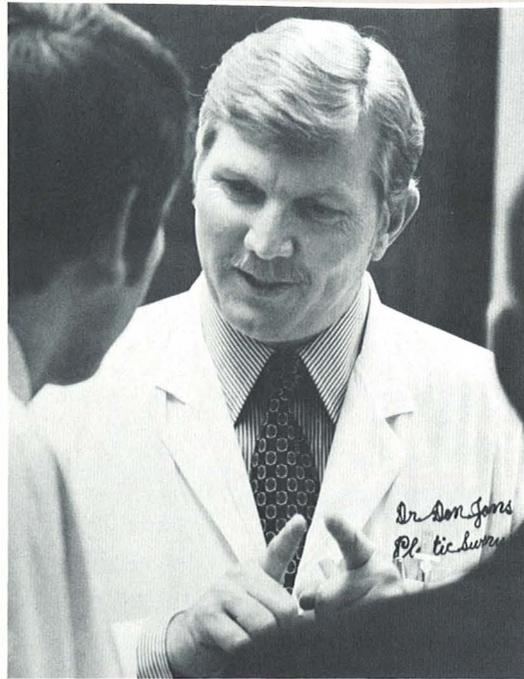
The Dallas team began in 1968 when a number of physicians and health-related specialists interested in the many problems associated with cleft lip and palate patients began meeting on a monthly basis. As time went on many patients began to be referred to this group. Within a few years the specialists were holding diagnostic and evaluation clinics three times a month, as well as beginning to do multidisciplinary teaching and holding case reviews.

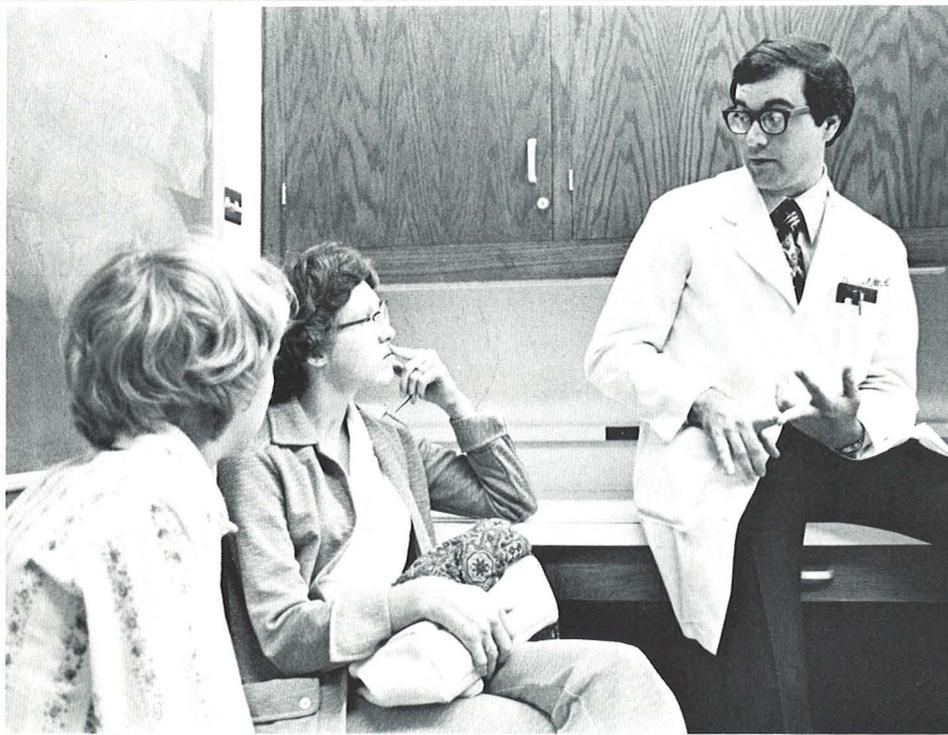
"By 1973 we were organized into a truly interdisciplinary team of specialists with the necessary expertise and knowledge to properly evaluate, diagnose, reconstruct and treat patients with major craniofacial anomalies, as well as the more common orofacial defects, such as cleft lip and palate," said Dr. Salyer.

Now, according to team director Sherrod, the group is working with about 100 patients a year.

What will happen to Jenny when she arrives for her evaluation and diagnostic session?

After a short wait in the cheery reception area decorated with picture-book wall hangings and sculpture designed with children in mind, Jenny and her parents will meet the whole team. There will be plenty of time to talk with the parents about the problem and discuss the child's history. Then it's off to a dental chair in the examination room where a full-time team of specialists, as well as appropriate part-time members, will listen while they take turns looking at and testing Jenny. This room, too, is full of pictures and toys -- and even the dental chair is a bright yellow. Most of the health personnel wear street clothes. They joke with Jenny and make a game out of the examinations, so Jenny is not frightened by a room full of





Lower photo: Listening to sounds through headphones is part of the further testing process. Top of page: Dr. Sherrod and entire team talk with mother, patient.

serious-looking people in white uniforms.

Still sitting back in the chair, Jenny is given a simple speech test and practices saying words at the coaching of a speech pathologist. Next she will be given a more comprehensive test with a tape recorder and the speech pathologist will check for any damage. X-rays are ordered for the same day. Audiograms and other tests may be made by the team's audiologist.

The team then assembles in a conference room to discuss Jenny's problems. Everyone is asked for comments and then for suggestions for a program of treatment and follow-up.

Jenny and her parents now join the team. Team members ask any questions that may have come up and request the names and addresses of any physicians or dentists to contact and send records to. In some cases the outside specialists may include psychotherapists and special education teachers. The team makes recommendations for an on-going program of treatment and surgery, if required. A long-range approach to all Jenny's related problems will be discussed with the parents. If she needs special help, such as medical or dental work that can be done in her community, or special schooling, speech therapy, or mental health/mental retardation services, referrals will be made for the patient or her family. Genetic counseling will also be offered, said Dr. Sherrod, who is also assistant director of the Birth Defects Center. Dr. Mary Jo Harrod, genetic counselor at UT Southwestern, participates in the initial evaluation conference and meets with the parents at that time.

Appointments are made for surgeries to be done at Children's for the next check-ups if surgery is not indicated at this time. Now Jenny is a full-fledged patient to be seen by the team as long as necessary.

Not only are children like Jenny, whose problems are severe enough, referred here. But the craniofacial team also sees children with such extreme abnormalities of the cranium and the

face that they almost appear "monsters." Some of these procedures combine the approaches and techniques from neurosurgery, as well as plastic surgery, Dr. Salyer said, and their application to the common problems of the face have made it possible to help many of these unfortunate children.

Father of these reconstructive surgeries of the cranial/orbital/facial skeleton is French surgeon Paul Tessier, who performed the first intracranial hypertelorism correction in Paris in 1969. The first intracranial procedure at Children's was done by M. Tessier and Dr. Salyer in 1972.

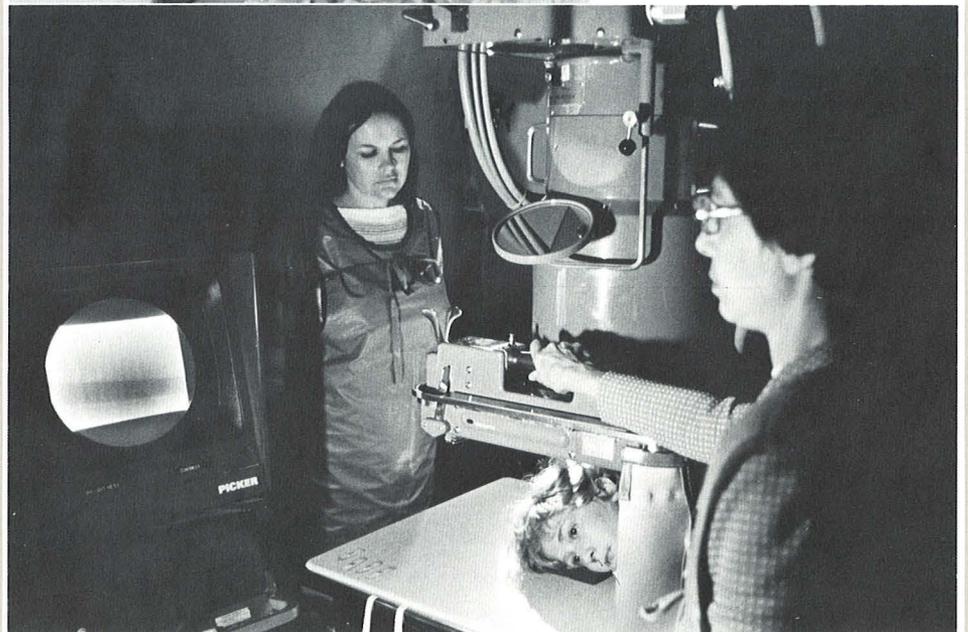
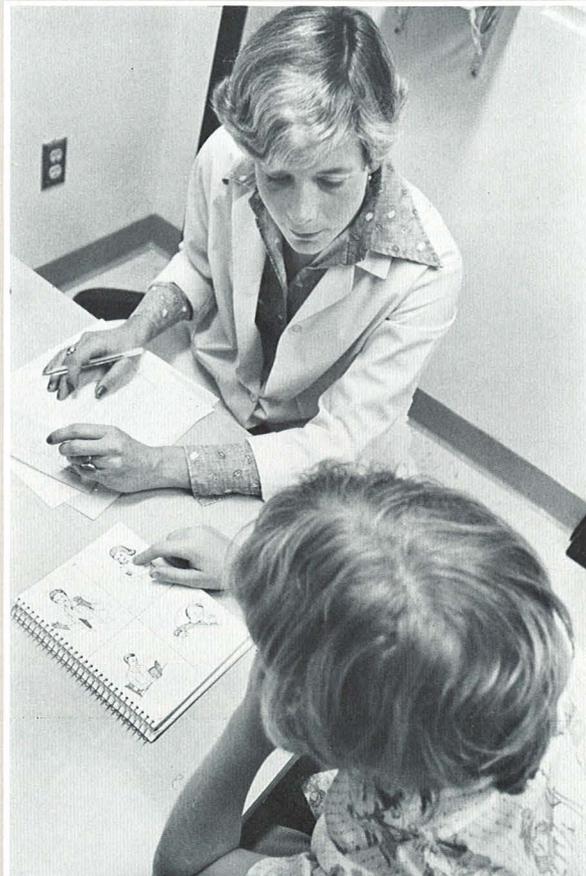
This extreme surgical procedure combined not only surgery involving deformity of the jaw but moving the orbits closer together, vertical repositioning and moving the orbits and other facial bones forward.

"The surgical rearrangement of the orbits is combined with the remaining facial skeleton so its component parts can be changed in any direction or a combination of directions," Dr. Salyer explained. Stabilization is obtained with the utilization of bone grafting, he added. According to Dr. Salyer, the complexity of craniofacial surgery is due to the variety of malformations, which involve both soft tissue and skeletal areas.

Included in the craniofacial abnormalities seen at the clinic from the relatively simple, such as cleft lip and palate, to the extremely complex "monster-making" deformities, are approximately 50 different types. About 50 per cent of these, he said, defy known categories or classification systems.

But the members of the craniofacial team believe patients can best be helped to achieve the most in terms of the quality of their lives through the specialist team approach.

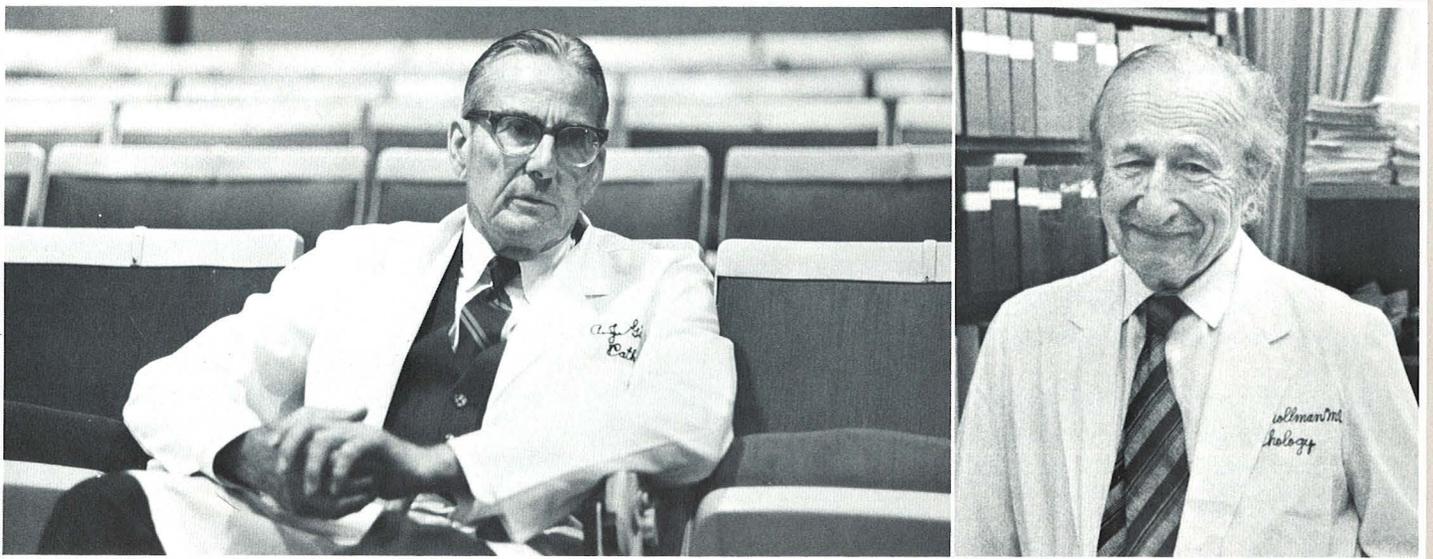
Says Dr. Sherrod: "The application of this concept has to become more widespread as more and more people realize that the team approach is the valid way to attack these problems." ■



Lower photo: a picture moving on a screen can tell professionals what is happening when a person speaks. Top: Pointing to the correct picture for the sound may seem easy, but mistakes may indicate a problem.

Campus Recap

It's change, not end, for two notable careers



Dean A. J. Gill (left) and Dr. Arthur Grollman . . . key figures in school's history "retire," but won't quit working.

Two of Southwestern Medical School's patriarchs were "moving on" this fall. Officially it's called "retiring," but these guys are not quitting work – they're just moving on to other things.

The versatile pair, **Dr. A. J. Gill** and **Dr. Arthur Grollman**, have moved easily from one duty to another in their many years at Southwestern. A former dean and faculty member since the founding of the medical school, Dr. Gill will become professor emeritus at the end of the school year. Dr. Grollman, who came in 1944 soon after the school opened, will become professor emeritus of internal medicine after serving most recently

as part-time professor of experimental medicine in the Department of Pathology.

"Professor emeritus" means a professor who "does whatever people agree that he does," according to Dr. Gill. He plans to do some teaching and a lot of writing, and he will have more time for his family and his farm.

Dr. Grollman plans to take "a little vacation first, probably in Colorado where it's cool." He enjoys riding horseback in the mountains there. After his vacation he plans to resume seeing patients, working as consultant to the Air Force and writing scientific articles.

"I have lots of outside interests, and I

don't plan to stop work," he said in a telephone interview from the University of Alabama, where he served as visiting professor in internal medicine this summer.

According to President Charles Sprague, both men played key roles in the history of this institution.

At the mention of history, however, Dr. Gill said, "The history is pallid compared to the way it was.

"The physical plant had to be seen to be believed. The buildings were built of plywood and concrete blocks with a minimum of plumbing and wiring. In the winter we had to wear overcoats in the lab. Someone once fell through the floor, lit-

erally fell through the floor. A prospective donor wanted to give us the money for an electron microscope – and this was back when hardly anybody had an electron microscope. We had to turn it down because we had no place where the building was strong enough to mount it,” said Dr. Gill.

He continues to be impressed at the quality of physicians the school turned out while occupying the “barracks,” which were so close to the railroad track that lecturers had to stop talking and wait for every train to go by.

“I think it proves that the most important ingredient in education is the quality of the student,” he said. He intends to share what he has learned in medical education and administration by writing a series of essays.

While Dr. Gill served as dean from 1955 until 1967, teaching is his first love. He takes pride in the graduates who are delivering good medical services in the community with little recognition because he says educating doctors is “what we are about.”

Internationally known as a researcher, Dr. Grollman established this school’s reputation as one of the really important centers for hypertension research, according to long-time friend and colleague Dr. Andres Goth, chairman of the Pharmacology Department. And nearly 50 years ago, Dr. Grollman was the first to discover a method of determining human cardiac output.

“This achievement stands as a singular but little honored accomplishment, and as an intellectual exercise, dwarfs the now popular methods of cardiac catheterization for determining cardiac output,” Dr. Sprague said in announcing the retirement of these two influential educators.

Dr. Grollman was also one of the first to isolate previously unknown steroids from the adrenal glands. He published a classic, *The Adrenals*, in 1936. Dr. Sprague called him a “leader in medicine” and a “legend in his own time.”

Dr. Sprague said the school is indebted to Dr. Gill for his “many contributions which were so crucial in the development of the school through a difficult, transitional period.” He praised Dr. Gill for the excellent “town-gown” relationship the school enjoys.

“Through the years there has been a most cordial relationship between the full-time medical school faculty and the practicing physicians in the Dallas community. Dr. Gill can take a great deal of the credit for fostering and nurturing this relationship which has been so important in our education and patient care pro-

grams,” said Dr. Sprague. He also announced the establishment by friends and colleagues of a \$100,000 endowment for the A. J. Gill Professorship in Pathology.

Although Dr. Gill prefers teaching to administration, Dr. Goth said he was a good dean to work under.

“He was informal and quick in making decisions and in letting you do what you thought was right. He hired the majority of the top clinical professors we have now,” said Dr. Goth.

Besides serving as dean and as professor of pathology, Dr. Gill has also served as acting chairman of the Department of Pathology, associate dean and acting dean. He is vice-president of the Texas Medical Association.

Dr. Grollman has held the positions of professor of medicine, professor and chairman of the Departments of Physiology and Pharmacology, acting chairman of the Department of Biochemistry, and professor and chairman of the Department of Experimental Medicine. He has written several textbooks and more than 400 scientific papers.

– ANN WILLIAMS



Moss new milestone

Another milestone has been achieved with the completion of the Harry S. Moss Clinical Science Building, the last major segment of the Health Science Center’s \$50 million expansion program. The eight-story, \$11.2 million Moss building thus caps a massive effort begun in the late 1960’s with the administration of President Charles C. Sprague.

After almost three years of construc-

tion, the structure was finished several months ahead of its original October, 1977, target date. Named for the late Dallas oilman-philanthropist Harry S. Moss, it houses major clinical and research facilities including the Moss Heart Center, a cardiovascular research facility supported by a trust provided by his estate. Other principal occupants are clinical departments of internal medicine, neurology, psychiatry, obstetrics-gynecology and surgery, plus the McDermott Center for Human Growth and Development and the Green Center for Reproductive Biology Sciences. The first two levels contain a modern Animal Resources Center.

Construction isn’t over on-campus, however. Work is under way on a \$1 million expansion of the Skillern Student Union building, with two additions designed to house service, support and exercise facilities for the center. And construction is proceeding on an addition to the campus’ power source, the Lone Star Energy Plant.

Meanwhile, other benchmarks of the center’s emergent maturity continue to appear. Last spring’s graduation saw the awarding of the 3,000th MD degree since the founding of Southwestern Medical College in 1943. And the 152 medical graduates constituted the last of the “small” classes prior to the emergence of the first 200-member graduating class of new doctors due next spring. This fall, the medical school welcomed its fourth consecutive class of 200, thus attaining the enrollment goal of 800 medical students, targeted when the expansion program was first charted.

Chairs, Professorships

Four chairs and professorships have been filled by appointment of distinguished members of the medical faculty. The quartet of designated academic positions was made possible by gifts to the Southwestern Medical Foundation. Honorees are:

• **Dr. Robert McClelland**, professor of surgery, who has been named to the Alvin Baldwin Jr. Chair in Surgery. This chair was made possible by a gift from Mr. and Mrs. Erik Jonsson.

• **Dr. Charles Baxter**, professor of surgery and chief of the burns unit at Parkland Memorial Hospital, has been designated as the Frank H. Kidd Jr., M.D. Professor of Surgery. A gift from the estate of the late Mrs. Frank H. Kidd Sr. created this professorship.

• **Drs. Joseph Goldstein and Michael Brown**, jointly chosen to hold the Paul J. Thomas Chair in Medicine. Both

are professors of internal medicine and widely honored researchers in inherited diseases of the cardiovascular system. The Thomas chair also was made possible by a gift from Mr. and Mrs. Jonsson.

Administrators

Major appointments have been made to fill key administrative posts at The UT Health Science Center at Dallas:

Leading the list is **Dr. Kern Wildenthal**, appointed dean of the Graduate School of Biomedical Sciences. Dr. Wildenthal, professor of internal medicine and physiology and recent Guggenheim Fellow and Visiting Scientist at the University of Cambridge, England, succeeds **Dr. Ronald Estabrook**, who is devoting full time to research and the chairmanship of the Department of Biochemistry.

Dr. Wildenthal has named **Dr. William Neaves**, associate professor of cell biology, to be associate dean of the graduate school.

Dr. Kenneth Altshuler, professor and director of medical education in clinical psychiatry at Columbia University's College of Physicians and Surgeons, is the new chairman of Southwestern Medical School's Department of Psychiatry and chief of psychiatric services at Parkland Memorial Hospital. He succeeds **Dr. Asa W. DeLoach**, who is continuing as a professor of psychiatry.

Dr. Phala A. Helm, associate professor and acting chairman of the Department of Physical Medicine & Rehabilitation, who has been recognized for her development of an innovative team approach to the rehabilitation of cancer patients, has been named chairman of the department.

Dr. Winfrey W. Goldman, Jr., assistant dean for clinical affairs, has assumed the chairmanship of UT Southwestern's reorganized and expanded Department of Family Practice and Community Medicine. Dr. Goldman, who has been in charge of the school's family practice residency training program at Fort Worth's John Peter Smith Hospital in Fort Worth, has named **Dr. William Ross**, a noted family practitioner of San Benito, Tex., as chairman of the new Division of Family Practice. **Dr. Marion Zetzman**, who had been serving as acting department chairman, is the new chairman of the Division of Community Medicine.

Dr. Norman F. Gant, professor and vice chairman of the Department of Obstetrics & Gynecology, is the new chairman of the department, succeeding **Dr. Paul C. McDonald**, who has become fulltime director of the Cecil H. and Ida Green Center for Reproductive Biology Sciences.

A measure of the quality of any institution engaged in educating medical specialists is the professional recognition achieved by teachers in those specialty areas. Currently, these Southwestern Medical School faculty members and administrators are serving on the certifying boards for their fields of expertise:

• **Dr. Frederick Bonte**, dean of Southwestern, is president of the American Board of Radiology.

• **Dr. Kemp Clark**, professor and chairman of neurosurgery, is secretary-treasurer of the American Board of Neurological Surgery.

• **Dr. Vernie Stemberge**, professor and chairman of pathology, is secretary of the American Board of Pathology.

• **Dr. William T. Fry**, professor and chairman of surgery, is an examining member of the American Board of Surgery.

Honors

Signal honors continue to be collected by members of the UTHSCD faculty and administrative staff. Among the most recent and most significant are:

• The Robert Koch Prize and medal, one of Germany's highest medical awards, presented to **Dr. Richard Finkelstein**, professor of microbiology, for his work in cholera. The prize was jointly awarded to Finkelstein and Dr. March Richmond of the University of Bristol.

• The Association of Professors of Medicine's Distinguished Chairman of Medicine Award, given to **Dr. Donald W. Seldin**, professor and chairman of internal medicine.

• The William J. Gies Foundation Award in Oral Surgery, made to **Dr. Robert V. Walker**, professor and chairman of oral surgery.

• The second annual FASEB Award for Research in the Life Sciences, presented to **Dr. Ronald W. Estabrook**, professor and chairman of biochemistry, by the Federation of American Societies for Experimental Biology.

Other recent honors and recognitions include:

Dr. William Pettinger, professor and chairman of clinical pharmacology, selected as one of 10 distinguished scientists to be a Creasy Visiting Professor of Clinical Pharmacology . . . **Dr. Jack Pritchard**, Gillette professor of obstetrics & gynecology, named to the National Institute of Child Health and Human Development Council . . . **Dr. Alice R. Johnson**, assistant professor of pharmacology, named to the pulmonary diseases advisory committee of the National Heart, Lung and Blood Institute . . . **Dr. Jack Reynolds**, professor and vice-

chairman of radiology, chosen by the Minnie Stevens Piper Foundation as a Piper Professor, one of the state's 10 outstanding teachers . . . **Dr. Gladys J. Fashena**, professor of pediatrics, recipient of Titches' Arete Award for excellence in her field . . . **Dr. Roger Unger**, professor of internal medicine, awarded an honorary Doctor of Medicine degree from the University of Geneva for achievement in diabetes research . . . **Dr. Frederick Bonte**, dean of Southwestern, serving as chairman of the southern region of the Council of Deans . . . **Dr. M.T. Jenkins**, professor and chairman of anesthesiology, elected to the Coordinating Council on Medical Education and the Council on Medical Education of the American Medical Association . . . **Dr. Roger Rosenberg**, professor and chairman of neurology, chosen as visiting professor at the University of Paris, the International Children's Center and the University of Porto, Portugal . . . **Dr. John Schermerhorn**, dean of the School of Allied Health Sciences, has been chosen as chairman-elect of the Council of Educational Institutions, a national organization of allied health school administrators . . .

Continuing a long established pattern, members of the medical faculty currently head major organizations of research scientists:

• **Dr. Jean Wilson**, professor of internal medicine, recently assumed the presidency of the American Society for Clinical Investigation, foremost among such professional societies. He succeeded a Southwestern colleague, **Dr. John Fordtran**, also a professor of internal medicine, who headed the society last year.

• **Dr. Daniel Foster**, professor of internal medicine, is current president of the Southern Society of Clinical Investigation, another of the prestigious organizations of medical researchers.

Editorships, Boards

Scientific publications also continue to draw from faculty talents. Among Health Science Center professors serving major medical and research journals:

Dr. John Fordtran, recently appointed editor of the journal, "Gastroenterology" . . . **Dr. Roger Rosenberg**, editor of a new monograph series on neurology and neuro-surgery, and named associate editor of the journal, "Neurology" . . . **Dr. Thomas Smith**, associate professor of biochemistry, named to the editorial board of Archives of Biochemistry and Biophysics . . .

— JOHN WEEKS

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