
Chapter 11

A New Milieu for Medicine

(1990–1995)

Beware of determining and declaring your Opinion suddenly on any Object; for Imagination often gets the Start of Judgement, and makes People believe they see Things, which better Observations will convince them could not possibly be seen: Therefore assert nothing till after repeated. Experiments and Examinations in all Lights, and in all Positions.

When you employ the Microscope, shake off all Prejudice, nor harbour any favourite Opinions, for, if you do, it is not unlikely Fancy will betray you into Error, and make you think you see what you would wish to see.

Remember, that Truth alone is the Matter you are in Search after, and if you have been mistaken, let no Vanity seduce you to persist in your Mistake.

Pass no Judgement upon Things over-extended by Force, or contracted by Dryness, or in any Manner out of their natural State, without making suitable Allowances.

Henry Baker, in “Of Microscopes and the Discoveries Made Thereby,” Read before the Royal Society, October 28, 1742.⁷⁵⁸

NEAR THE CRADLE of human cultural history—the Persian Gulf—America sent troops to war again in the early 1990s. The rest of the country’s population became transfixed to images on television sets, beamed in perfect clarity by satellite. On the screen, as-

tounding new weapons burst into flashes of light, criss-crossing the night sky over Baghdad, the capital of Iraq. Ending quickly, the 1991 "Gulf War" demonstrated symbolically the startling technology that had pervaded almost every aspect of life in the final decade of the twentieth century.

Then there was trouble in Somalia, Haiti, and civil war in the Balkans—the very region where World War I had been ignited.

America could not always prevent problems from erupting in widely disparate parts of the globe, but occasionally she could control immediate problems with superior military forces. And, often she was called upon to do so.

The world of medicine was not so terribly different from the world of international relations. Transformed by new technologies, it likewise could not control its environment. Politically there were constant brushfires and medically there was emergence of new and mutating diseases.

At the beginning of the century, syphilis had been a prevailing concern; in the 1990s, AIDS proliferated. Old diseases presented new faces. Tuberculosis had become resistant to antibiotics, and a forgotten streptococcal infection known as "the flesh-eating" bacteria made headlines. Pollution from an industrializing Mexico, pesticides on Texas farms, and automobile exhaust in Texas cities were suspected causes of environmental illnesses. Along the Mexican border, contamination associated with unclean water and lack of sanitation promoted cholera and allowed mosquitoes to breed and once again spread dengue fever. Rare viruses were reported.⁷⁵⁹

Yet, the final decade of the twentieth century hovered on the brink of immense new promise, especially in immunology and molecular biology. In 1990, doctors at the National Institutes of Health began the first gene therapy on a human patient, injecting cells into a four-year-old.⁷⁶⁰ In 1991, the National Cancer Institute initiated clinical trials of retinoic acid (vitamin A), and preliminary studies showed it caused cancer cells to mature and die.⁷⁶¹ The prostate-specific antigen immunoperoxidase (PSA) blood test for early diagnosis of prostate cancer became available, and the faulty gene in cystic fibrosis was identified. DNA applications were becoming ever more common and essential in clinical and forensic laboratories.

One such usage became important in Texas in early 1993, when the Branch Davidian mass disaster occurred outside Waco. De-

scribed as “the most complex crime scene of this century” by the Federal Bureau of Investigation, the tragedy ultimately became the grisly duty of the Tarrant County Medical Examiner’s Office in Fort Worth, which had a contract to provide services for McLennan County where Waco is located. Nizam Peerwani, MD, chief medical examiner, directed and processed the forensic evaluation. He reports that eighty-five bodies were examined, including ten who were killed in the initial shootings when agents of the federal Alcohol, Tobacco, and Firearms Agency (ATF) attempted to enter the compound. Included were four ATF agents and six members of the Branch Davidian cult who had been buried on the grounds. When fire broke out on April 19, destroying the compound and its inhabitants, Dr. Peerwani and his staff received seventy-five more bodies to examine.⁷⁶²

Forty-five of the bodies in the disaster were identified by the following means: 33, dental records; 4, fingerprinting; 2, both dental records and fingerprinting; 2, comparing radiographs. The four ATF agents were identified visually. This group of forty-five, which included one child, was identified and autopsied within a month following the fire. Another ten months was required to complete identification of the remaining forty bodies, for which DNA techniques were employed.

DNA technology had provided a tremendous boost in the ability to make identifications. The district medical examiner’s office in Fort Worth, which serves Tarrant, Parker, and Denton counties directly, initiated its DNA system in 1989, completed testing and quality assurance in 1990, and was on line in early 1991.

Generally, in medicolegal cases, Dr. Peerwani reports that defense lawyers and the courts have accepted DNA technology, and that the only problems result sometimes from procurement of samples by police. Nevertheless, he has not encountered difficulties having the courts accept the technology.

Other technological advances continued to amaze the world of medicine in the 1990s. Ultrasound scanners could produce two-dimensional slice information at high speed, tracking moving structures in the body. On top of that, they had been miniaturized to one millimeter for use with endoscopes and surgical instruments; Doppler scanning provided information on rates of blood flow; magnetic resonance imaging (MRIs) was expected to grow ever more discriminate, less expensive and find new uses. Artificial intelligence

also was making significant advances.⁷⁶³ The laser had become an ever more useful tool. Pharmacology had exploded, and some new drugs were found deep within rain forests. Fine needle aspiration was used routinely for biopsies, and, in oncology, selective targeting was applied in a number of ways, including using monoclonal antibodies to enlist the aid of viruses and bacteria in delivering cytotoxic drugs.⁷⁶⁴

Medical advances sometimes backfired, of course, and such was the case in 1992 when the public became alarmed about the side-effects of silicone-gel breast implants. The Food and Drug Administration placed a moratorium on their use, with special guidelines. Meanwhile scores of liability suits were filed against manufacturers and physicians who had been involved in the procedure.

Regardless of setbacks, new technologies continued propelling society ever deeper into the information age. Parallel computers sorted, compiled and reported thousands of items at once. Marriages between telephone, computer, and television brought “virtual reality” ever closer. Smaller satellite dishes and other equipment made “telemedicine” more feasible at remote sites. Continuing enhancements of the Internet, with sophisticated “web” browsers, provided ever simpler access to medical information throughout the world.

Texas pathologists had embraced automation and computerization since the 1960s, and their eagerness to remain at the forefront of the information age was evident when a 1995 resolution from the Texas Society of Pathologists called for inclusion of E-mail addresses in the next membership directory of the College of American Pathologists. The idea was adopted by the national organization.⁷⁶⁵

Pathologists also were more comfortable with changing technology than they were about new directions in the health care system itself. Although the problems—economics, ethics, and quality—were the same as those that confronted the specialty seventy-five years earlier, they had a chameleon-like nature and were far more complex and pervasive.

A few decades earlier, the clinical laboratory had been located in an un-air-conditioned, dimly-lit room, typically in the basement. The room might be furnished with a microscope, a Bunsen burner, a few tubes and flasks, perhaps gallon pickle or mayonnaise jars, a sink, and little else. The stench was sometimes overwhelming. Now

it had become an almost pristine chamber lined with computerized equipment. The academic museums of elegant cherrywood cases long ago had fallen way to 35-millimeter slides, which easily could be electronically scanned and transmitted vividly via the Internet.

The 1980s also saw the rise of large commercial laboratories. Organizations such as Corning and SmithKline rapidly began purchasing private laboratories in Texas and elsewhere.

In some locales, as large corporations continued their rapid purchase of private laboratories, the often-repeated laments about lay-owned laboratories took on a new cast. Managed care was no longer something that was coming. It had arrived. Coping with change would become necessary for survival, and meanwhile for pathologists, there were long workdays filled with administrative and professional demands.

As knowledge exploded, pathology continued to subdivide, and by June 1995, under the primary certifications of anatomic and clinical pathology, the American Board of Pathology recognized ten subspecialties: blood banking/transfusion medicine, chemical pathology, cytopathology, dermatopathology, forensic pathology, hematology, immunopathology, medical microbiology, neuropathology, and pediatric pathology.⁷⁶ Also by June 1995, the Texas State Board of Medical Examiners had licensed more than 1,400 pathologists, and nearly 600 Texas pathologists were members of the Texas Society of Pathologists.

Though unseen by most patients, pathologists served Texas patients in many capacities—as medical school faculty and basic science researchers, as hospital-based clinical and surgical pathologists, as forensic pathologists, as partners in small group practices, and as medical directors for large commercial laboratories. They were integral members of medical teams.

Regardless of the new dimensions of pathology in the 1990s, not everything had changed. “Circuit riding,” for example, had not disappeared. For Dr. Wm Gordon McGee of El Paso that meant traveling regularly to New Mexico, Northern Arizona, and as far as Montana to provide contract services for the Indian Health Service and others.

In a way, Medicare had helped extend his services over the years because it required visits by pathologists, but he predicted that the specialty of pathology “was in for rough times.” There would be restraints and production quotas with few pathologists in the labora-

tories, most contracted to Health Maintenance Organizations and other groups. Early in the computer revolution, he and his partners had understood their importance and, unable to find the right systems for themselves, they developed their own software in the late 1970s, and eventually began to sell it nationally. As Advanced Laboratory Systems, the group had installed 40 or 50 systems when bought out in part by 3M Corporation. In April 1995, the group sold the software company to an Atlanta firm.⁷⁶⁷

In 1990-1991, Dr. McGee would serve as president of the Texas Medical Association. It was the year that the association successfully won a recoupment of \$13.5 million in Medicare payments for physicians.

Not every city had experienced the presence of large commercial laboratories, but nevertheless transformation in the medical environment was insidiously at work. Susan Strate, MD, who had received her medical degree from the University of Nebraska and completed her residency training at UT Southwestern, had been in practice in Wichita Falls since 1985. When she arrived, the city had two main pathology groups and, in addition, there were pathologists at nearby Sheppard Air Force Base. During that time she had seen few changes in the two main groups. Each had served one of the main hospitals and also outlying smaller hospitals. Changes, however, did occur in other physician practices. After having been together many years, some groups began to split and that shifted the traditional relationships to laboratories. Intensifying government regulation and subsequent twists in reimbursement methods had affected the way hospitals conducted business; still, the major changes were attributable to managed care and the mergers of physician practices. From 1993 to 1995, that meant an increasing number of contracts to evaluate and sign, and the intensity of change became much more noticeable than during her first eight years in practice. Her laboratory nevertheless remained a fee-for-service group, and had no capitation contracts. Only one major chain, Columbia HCA, had set foot in Wichita Falls, as owner of the Surgicenter, whereas the city's two acute care hospitals continued under their previous ownership—Bethania run by the Sisters of Charity and Wichita General Hospital managed by a private board of Wichita General Service Corporation as a not-for-profit institution.⁷⁶⁸ Along with changes related to managed care, Dr. Strate noted that pathologists'

knowledge and skills in management, contracting, utilization, and quality improvement were in high demand—suggesting that indeed there were many opportunities for pathologists in leadership roles for which other physicians had less expertise.

Dr. Strate served as 1995 president of the Texas Society of Pathologists.

Dr. Richard Hausner of Houston, who had left the faculty of Baylor College of Medicine for private practice in the early 1980s, observes that pathology was having to respond to changes bigger than itself, changes that were very difficult to control. Consolidation of hospitals, mergers, and “megachains” in turn had caused adaptations in both private and academic practice of pathology.

“It is very difficult to control,” he declares, “you must respond to the environment and yet remain true to your own professional principles.” When it comes to assuring quality, he believes medical and pathology organizations must be the keepers of the flame and remain true to creed and profession. A challenge, he says, that also might call for a reinterpretation of role and mission.

In part, however, he believes that the direction of medicine depends on that taken by technology, with the pendulum possibly swinging back, and pathology emerging as even more important. Perhaps, he adds, pathology might evolve, adapt and be rediscovered in a different form while keeping its same principles of professional conduct.

He also finds that consultations between pathologists had become more frequent and necessary in terms of quality assurance and for medicolegal purposes. Such consultations were attributable to the need for practicing defensive medicine and, as technology and science continued to refine the possibilities for more sensitive and sophisticated determinations, greater technical skill was required. Such was the case with carcinoma of the prostate with suspicious levels of specific antigen (the PSA test), in which small amounts of tissue had to be interpreted extremely carefully, sometimes requiring extra scrutiny. Further, radiology was revealing deeply-situated breast lesions that also were more difficult to interpret. In addition, there was fine needle aspiration, a “a cytology explosion,” immunocytochemistry, histopathology, and flow cytometry.

Under the circumstances, smaller practices might have only a limited ability to perform some of the sophisticated testing, and had to send work to larger centers with the necessary technologies.

Another change Dr. Hausner had observed was that outpatient laboratories owned by pathologists were much less common—they were either economically difficult to sustain or being sold to larger laboratories.

For medicine generally, mass reform of the health care system and “national health insurance” had seemed imminent early in the 1990s, but by 1995 the chances of such sweeping change had diminished. Nevertheless, piecemeal changes continued to impact pathology. **Ibrahim Ramzy, MD**, of Houston, 1994 president of the Texas Society of Pathologists, felt the environment that year had “pitted private practitioners against academicians, large national laboratories against small private laboratories, and private pathologists against each other.”⁷⁶⁹ Like it or not, the old days had virtually disappeared.

During 1994 alone, the number of Medicaid beneficiaries joining managed care plans increased by about 64 percent, from 4.8 million to 7.8 million. That meant that, of the nearly 34 million people enrolled in the Medicaid program, 23 percent overall were served by managed care programs in 1995.⁷⁷⁰

In 1995 also the long-delayed implementation of the Clinical Laboratory Improvement Act of 1988 was expected though not yet reality, and was to include proficiency testing in cytology. A Cytology Consortium, including the American Society of Clinical Pathologists and others, was to meet with the Centers for Disease Control in Atlanta to screen slides for use in testing. In addition, the College of American Pathologists had received what was called “deemed status” under the law, permitting its long-standing inspection program to be considered “equal” by CLIA standards.

Imposed upon the long list of acronyms encompassing the practice of medicine in the 1990s was a new set of laws known as Stark I and II. Hugh M. Barton, JD, an assistant general counsel for the Texas Medical Association, writes that Stark I became effective on January 1, 1992, banning physicians from referring patients to clinical laboratories in which referring physicians had ownership. Stark II became effective on January 1, 1995, expanding the ban to Medicaid patients and to ten “designated health services.” In practical terms, however, the initial rules issued by the Health Care Financing Administration in August 1995 applied only to Stark I, covering Medicare patients. Although physicians could own laboratories within the confines of this statute, they could not refer

Medicare patients to a laboratory in which they or members of their immediate family had financial interests.⁷⁷¹

Another interesting legal battle caused apprehension in the 1990s regarding “professional component” charges for clinical pathology services for Medicare patients. In November 1991, the Central States Health and Welfare Fund halted Medicare “Part B” payments to Pathology Laboratories of Arkansas, which had a contract to provide clinical pathology services for Baptist Memorial Systems Hospitals of Little Rock. Previously the fund had paid for both the claims filed by the hospital and the claims filed separately by the pathologists for their professional component. In 1992, however, the Central States Fund, a multi-employer program governed by the Employee Retirement and Income Security Act (ERISA) filed suit seeking restitution from the pathologists for payments made between 1986 and 1991. In addition, Central States sought an injunction to bar Pathology Laboratories from billing patients directly for professional component charges. The laboratory group filed a counterclaim seeking a declaration that the Plan Document permitted a professional component fee; however, the district judge granted summary judgment to the Fund on the counterclaim, and the laboratory accepted the decision. In 1994, the case was transferred to another district judge, who held a bench trial. In this case the judge concluded that the Fund had been aware of the nature of professional component “long before November 1991,” and on December 1, 1995, the United States Court of Appeals Seventh Circuit affirmed the judge’s opinion that restitution was not due the Fund for several reasons. In addition to certain legal points, it found that the Fund before 1991 was aware of the separate charges by the hospital and the laboratory; that the laboratory had not been misleading in billing for its professional component, and that fees charged by the laboratory had not been “excess payments” but rather were fair market charges.

“The Fund’s staff,” said the Court, “was and is knowledgeable about compensation for medical care. It cannot have believed that bills of \$2 or \$5 per test represented the full charge for hands-on examination or interpretation. Nowhere in America have medical specialists’ personal services been that cheap—not for a long, long time.”

The Court also stated that either the Fund or its participants should pay Pathology Laboratories’ bill. “Why should we leave physicians holding the bag?” the Court asked.

In setting out its opinion, it also had distinctly defined the professional component as one of “setting up test protocols, calibrating the equipment and supervising the testing, and, if necessary, interpreting the results and consulting with treating physicians.” It further recognized that pathologists were present or on call twenty-four hours per day and that they did not submit a separate bill when they intervened to ensure that a test was done right, to recheck a surprising result, or to interpret ambiguous data. It also characterized the professional component billing system as one that spread costs across all patients without having to keep records about specific tests required for specific services.

The ruling was a court victory for Pathology Laboratories of Arkansas, and provided some sense of relief to other pathologist groups across the country regarding separate billing for the professional component of their work. But it did not provide assurance that a plan like Central States would have to offer separate billing options for the professional component. Although pathologists could directly bill beneficiaries under the Central States Fund, an interim agreement meant that they could not force beneficiaries under the previous plan to pay.

Only time would tell the real implications of the ruling for pathology and the precepts established a quarter century ago regarding separate billing for professional services provided through an institution. Vigilance remained the watchword.

The Texas Society of Pathologists, which had been involved in legislative and judicial matters from its earliest years, had enjoyed an important success during the session of the Texas Legislature meeting in 1995. The interstate or telemedicine act was passed. It required that a person physically located in another jurisdiction but performing an act constituting the practice of medicine “on a non-episodic and routine basis” have a license to practice medicine in Texas. In such a case, the individual would be subject to regulation by the Texas State Board of Medical Examiners.⁷⁷² The act, in effect, extended existing law to meet the needs of a more global and technological world, assuring that medical acts pertaining to Texas inhabitants were performed and directed by physicians regulated by the state of Texas.

There were other subtle changes in the profession in 1995 that were not necessarily discussed. However, the once-adversarial posi-

tions between doctors of medicine and osteopathic medicine had lessened. Of course both had long been licensed by the State Board of Medical Examiners and both were members of the Texas Medical Association. Now professors also were reporting no differences in the quality of students in approved pathology residencies. What once was perceived as a cult by mainstream medicine had, in essence, become a part of the mainstream.

An issue debated for more than twenty years became codified in Texas law beginning January 1, 1995, as the Texas Legislature required Texas physicians to obtain 24 hours of continuing medical education for the annual renewal of licenses.^{773,774} The law was passed in 1993 as part of the Medical Practice Act, and called for the reporting of hours, with a random audit system to assure compliance.

Medical school demographics in the 1990s continued to reflect other trends since the late 1960s. The number of women students continued to increase, and had reached an almost 50-50 ratio. Recalling that there were seven women in his class of seventy-five men at McGill University in Montreal, Dr. Berne Newton, who graduated in 1940, commented,⁷⁷⁵ "Ignoring the politics, World War II left the Russians decimated in manpower, and they needed engineers to build the country. If anything good came of Uncle's Joe's [USSR dictator Joseph Stalin] policy, it was that he sent men to be engineers and women into medicine. The movement spread from Europe to Brazil to the British Isles to Canada and then the United States—that is why we have more women in medicine," he concluded.

He also described the physicians he was training in pathology at Baylor College of Medicine in Houston in 1995 as the "United Nations"—representing every country in the world. Commenting about their qualities, he declared that students of the 1990s felt freer to express themselves, and that they were better educated. Among the best educated, he added, were those of oriental heritage. "They are at the top of the class today," he declares.

Thus, in a circuitous way, the lineage of pathology had not only extended from Virchow's Würzburg to the once remote prairies of Texas, it had superseded those who had scoffed at the quality of what could come out of Texas. Now, in the final decade of the twentieth century, Texas was exporting knowledge full circle around the world.

Migration and status of long-sought goals

ALREADY, TEXAS PATHOLOGISTS had migrated from the Red River to the Rio Grande and from the Gulf of Mexico to the 100-mile vistas across western Texas.

As an example, by 1995, Texas Tech Health Sciences Center in Lubbock would have six pathologists on staff, with Dr. Dale Dunn as chairman. Methodist and St. Mary's Hospitals in Lubbock would have four pathologists each. A small proprietary hospital, South Park, would have two pathologists, and also provide forensic pathology. Lubbock apparently had just been approved for a Medical Examiner system, and Dr. Sparks Veasey was appointed to fill the position.

Although the Texas Society of Pathologists had never been successful in its bid to the Legislature for a statewide medical examiners' system, forensic expertise was spreading across the state. Thirteen counties now had medical examiners' offices, Lubbock the newest one, and Bexar, Harris, Travis, Dallas, Collin, Ector, El Paso, Galveston, Johnson, Nueces, Tarrant-Parker-Denton, and Wichita counties. Not all counties actually had autopsy facilities, however. Some of the larger counties provided those services on a contractual basis.

For a variety of reasons, fewer hospital autopsies were being performed, a fact overwhelmingly lamented by pathologists, who, despite the capabilities of scanning equipment, felt that the "final diagnosis" was still essential. What once had been a learning opportunity had become clouded by threats of litigation and an unwillingness to pay the costs.

Pathologists, depending on the situations in their own communities, had varying perspectives on the status of pathology in the mid-1990s. Some were optimistic, some were not—but all agreed that pathology was a vitally important specialty and the backbone of scientific medicine.

The problem, observed Jerome Wilkenfeld, MD, director of the laboratory and pathology at Spring Branch Hospital, where he had been since 1970, was that the only image the public had of pathology was that of the television show "Quincy," and other pathologists had never conveyed to the public what they actually did. The public therefore never had gained an understanding of how much or what was involved in laboratory work. In the 1990s, for

instance, his typical day ran from eight A.M. to eight P.M. Since surgery began at 7:30 A.M., there was much work to be done early, including frozen sections. Also in the morning, he focused on hematology and coagulation, and other procedures. A pathologist also was required to review every Pap smear. His work required constant learning because there was always something new, and routinely he studied a number of journals the day preceding a difficult case. Between ten A.M. and five P.M. every day, he read and interpreted slides—and there always were conferences to attend.⁷⁷⁶

Though he feared that pathologists were an endangered species, it was clear that hospitals considered their consultation valuable. Because of their involvement in every medical discipline, a pathologist served on every committee of his hospital. Nevertheless, he remained concerned about the present-day focus on dollars and its possible negative impact on quality. He was worried that the benefits or value to the patient were no longer being considered.

In practice, however, he was the proverbial “doctor’s doctor.” Daily he consulted with physicians behind the scenes about patient care, often making the most critical decisions.

“But patients don’t know it,” he said.

Without pathologists, he further stated, all physicians would be dependent on those selling them equipment for the value of test results, quality control, and determining whether results are accurate and significant. In addition, echoing what others had said earlier, he cited the ever-more-specific diagnoses that had come out of progress in cancer research. Such progress actually meant that the pathologist was making the determining diagnosis regarding whether the cancer was benign or malignant, and determining such major factors as whether or not a breast should be removed. In the 1970s, he recalled, “malignant meant malignant,” but in the 1990s, great variations of malignancy could be detected. In short, the pioneer work of men like A. C. Broders in grading pathology in the early days of the century had grown to levels of great sophistication.

Further, the pathologist was ever more deeply involved in patient treatment—a major contributor on how patients were treated. If Dr. Wilkenfeld could have done one thing differently as a pathologist, he would have chosen much more “hands-on” treatment. He would have been much more visible to the patient.

Perhaps the perspective of one with more than five decades of watching and being involved in pathology demonstrates, however,

the strong feeling most pathologists had about their specialty in the 1990s. Dr. R. H. Chappell, formerly of Texarkana and a resident of Tulsa, Oklahoma, turned eighty-one in the fall of 1995. "I can't imagine anything being more fun," he says, "and, if I could, I'd go back and practice now. But not too many people want an eighty-one-year-old pathologist."

From her view as 1995 president of the Texas Society of Pathologists, Dr. Susan Strate sees the pathologist of the future as a multi-faceted individual—a primary care consultant who must be computer-literate, have strong management skills, know his or her legislator, and collaborate with "the house of medicine." In addition, the pathologist must be an advocate for cost-effective medical care. She particularly sees an opportunity for leadership in this regard as more multi-specialty groups develop.

Honors

TEXAS PATHOLOGISTS in this decade achieved success and recognition in many areas. **Eleanor Irvine, MD**, of Wichita Falls was honored by her Wichita County Medical Society with its Distinguished Service Award for 1994. That same year, **Joyce Schwartz, MD**, of San Antonio was appointed to a test committee of the American Board of Pathology and **Susan M. Strate, MD**, of Wichita Falls, 1995 president of the Texas Society of Pathologists, had been appointed Deputy State Commissioner of the College of American Pathologists' Laboratory Accreditation program. Dr. Strate also received the 1994 Pinnacle of Success Award from the American Association of Medical Society Executives for the outstanding quality of *Focal Point*, the newsletter of the Texas Society of Pathologists. Adding to that, in the fall of 1995 she received the Lansky Award of the College of American Pathologists' Foundation. The award is presented annually to a board-certified pathologist under the age of 40 who has demonstrated leadership consistent with the goals of the CAP Foundation and has made significant contributions to the field of pathology.⁷⁷⁷

In 1994, **John J. Andujar, MD**, of Fort Worth was named the first honorary president of the World Association of Pathologists.⁷⁷⁸

Richard Hausner, MD, of Houston, a previous recipient of the

CAP Foundation Lansky Award, was chosen president-elect of Harris County Medical Society in 1994 and elected to the College of American Pathologists' Foundation Board of Trustees in July 1995; **David N. Henkes, MD**, of San Antonio was appointed to the Texas Radiation Advisory Board; **Merle Delmer, MD**, of San Antonio was recognized by resolution for his more than twelve years of service on the American Board of Pathology.⁷⁷⁹ In September 1995, **Robert McKenna, MD**, professor of pathology at The University of Texas Southwestern Medical School at Dallas, became president-elect of the American Society of Clinical Pathologists.

Pathologists also honored others outside the specialty of pathology for their contributions to medicine and pathology. In 1995, the Texas Society of Pathologists presented Nancy W. Dickey, MD, of Richmond, Texas, with its Citation of Merit Award for Outstanding Medical Leadership for her work on their behalf. Dr. Dickey was the first woman ever to serve on the American Medical Association Board of Trustees when she was elected in 1989, and became chairman of the board in December 1995.

Science in the 1990s

THE AMERICAN MEDICAL Association's Council on Scientific Affairs reported in 1994 on the challenges and opportunities for science and biomedical research under expected health systems reform. The council observed that it was "widely accepted that the United States has assembled the largest biomedical science enterprise the world has ever seen." It also pointed to the vast public sector led by the National Institutes of Health, the National Science Foundation, and privately endowed efforts that were promoting research in academic health centers, training scientists, and spawning Nobel laureates. In addition, the council cited the efforts of major pharmaceutical companies and the biotechnology industry. Together, these groups were investing more than \$30 billion per year in research and development, contributing not only to medicine but to economic growth in the United States.⁷⁸⁰

"While truly remarkable progress has been made over the last forty to fifty years," the AMA council said, "the current pace of progress and potential range of accomplishments in science will dwarf all previous major advances in the history of medicine. At no

other time in the past century have so many advances been made in biomedical research that have revolutionized patient care: measles, Parkinson's disease, cystic fibrosis, adenosine deaminase deficiency, melanoma, Gaucher's disease, spinal cord injury, angina, colon cancer, muscular dystrophy and burn injuries are only a few of the many areas of medicine in which new curative, preventive, palliative or therapeutic approaches have been developed in the last two years alone. Mapping of the human genome, with its 100,000 genes, the isolation of the expected 50,000 gene products by which genes carry out their functions, and the elucidation of how these genes and products might be used for therapy are but a few goals of the Human Genome Project. To date, at least two chromosomes have been completely mapped, and no less than twenty-five protocols for gene therapy have been implemented and/or approved."

The AMA also reported that more than seventy biotechnology companies were working on AIDS treatments, about twenty-five companies on Alzheimer's diseases, and another fifty on other diseases of aging such as Parkinson's diseases, arthritis, and stroke. In addition sixty biotechnology companies were working on treatments for medical conditions primarily affecting women, such as breast and ovarian cancer, osteoporosis, depression and multiple sclerosis. Further, the biotechnology industry by 1994 had invested at least \$10 billion to develop advanced molecular biological techniques.

A note of gloom was projected regarding scientific endeavors, however. There were significant threats in the newer economic and political climate, including reduced federal funding for science and research and ideological battles in many areas, such as fetal tissue transplantation research, xenografting, and the drug RU-486.

In 1995, the Human Genome Project issued a report that it had completed its first map of human DNA more than a year ahead of schedule at a cost less than budgeted, and had identified at least fifty disease-causing genes. The project also had begun efforts toward its "most ambitious" goal of identifying the precise sequence of each of the three billion bases in human DNA, and by the fall of 1995 had sequenced about 1 percent of the total number.⁷⁸¹ Among the discoveries was a genetically-coded protein, apolipoprotein-E4, known as APO-E4, and familiarly called the Alzheimer's gene. The discovery also had fostered basic research in other brain diseases and head injuries.⁷⁸²

Perennial issues remain

AT THE CLOSE OF 1995, the timeless issues lingered. In many ways they were simply cloaked by different terms—but they seemed infinitely more complex. The issue of lay laboratories had undergone metamorphosis with the advent of large commercial laboratories. As in the case of retail businesses, small, private laboratories remained concerned about encroachment of the corporate laboratories. At the same time, Texas had strengthened its basic tenet that the practice of clinical pathology was the practice of medicine, requiring organizations involved in medical practice to have medical directors.

During the 1950s, pathologists had been deeply concerned about cytology kits being used by others than pathologists; in the 1990s, point-of-care testing was becoming widespread. Automation that had exploded in the 1960s continued to accelerate. In 1995, for example, the FDA had just approved an automated Pap smear screening device.

Practice patterns were evolving. A survey of pathologists showed that 69 percent of those responding were in a “pathology only” group and that two-thirds practiced in groups of four or more pathologists. Their workloads per week averaged 49.1 hours, and 67 percent of pathologists were involved with managed care organizations.⁷⁸³

From its inception, the Texas Society of Pathologists had been involved in legislative matters, often handled in a very personal way by a small corps of leaders. A key contact system had been set up many years ago but was revitalized in 1995, and a manual developed to assist all pathologists in influencing the legislative process as the number of issues continued to increase. Organizationally, the Society had developed new efficiencies and expanded services to meet future challenges.⁷⁸⁴

Complicated regulations and confusing reimbursement policies remained an anathema. Managed-care approaches threatened to divide physicians according to primary care and specialty care, and according to methods of reimbursement. Further, support for medical education was being curtailed. Professional liability issues continued to hover over pathologists' heads. The uncertain future of pathology was portrayed in the diminished number of job offers per

resident, and one database suggested that the job market for pathologists had contracted by 40 percent since 1994.⁷⁸⁵

The problems in the practice of pathology at the close of 1995 were macroscopic not microscopic. Buffeted by forces beyond them, pathologists were concerned about the future of their specialty, but more convinced than ever that it was critically important to the quality of patient care.

It is good perhaps to reflect on a few concrete changes in the practice of pathology since the time that Dr. Beecher F. Stout first established his laboratory in San Antonio in 1904 and to appreciate the progress that had been made since 1921 when the Texas Society of Pathologists was formed.

For this, Dr. Vernie Stembidge has kindly developed the following comparisons of laboratory menus.

Year	Common Analytes	Uncommon Analytes	Stat Analytes
1905	8	15	
1921	@20	@30	
1995	@500	@600	100

Common analytes found in all three time periods, he notes, are urinalysis, blood sugar, cultures, ova and parasites.

Midst the complexity of the final decade of the millenium, there emerges a refreshing simplicity.

Goodbyes

Texas pathologists lost a cadre of leaders in 1991: Dr. John R. Rainey of Austin, long active in the realm of legislative affairs; Dr. Elwood E. Baird of Galveston, who had been instrumental in the ASCP certification program for medical technologists; Dr. Alvin O. Severance of San Antonio, considered the Texas dean of surgical pathology, and Dr. David P. Williams of Fort Worth. In 1994, Texas pathologists said goodbye to one of their most colorful and most distinguished colleagues, Major General Elbert DeCoursey. He died in San Antonio at age ninety-two.⁷⁸⁶ They also lost long-time leaders Marcelo (Marc) Garza, MD, a native of Brownsville and resident of Dallas, and Jarrett Williams, MD, of Abilene, who had established

the first clinical pathology laboratory in the region in 1950. He died at age eighty-seven. John Leslie Smith, MD, of Houston also died in 1994. In 1995, Texas pathologists lost yet another close friend and respected leader, Carl J. Lind, Jr., MD, of Houston.

End of an era

A DISTINGUISHED CADRE of Texas pathologists retired in the 1990s. Among them were two inimitable leaders in forensic pathology who had established a new day for medical examiners' systems in Texas, helping to bring Texas beyond the ancient and unscientific justice-of-the-peace system. In Dallas, Dr. Charles S. Petty, chief medical examiner, retired in 1991. On August 31, 1995, Dr. Joseph A. Jachimczyk of Houston retired at age seventy-one as chief medical examiner of Harris County, having been the first formally-trained forensic medical examiner in the state.

It was time to turn the page on the history of pathology in Texas, and peer into the future.