

Genentech, Inc.
Genentech, Inc.
Genentech, Inc.
Genentech, Inc.
Genentech, Inc.



1984 ANNUAL REPORT

Bringing to market
new therapeutics based on
advancing knowledge
in biological sciences.

Selected Financial Data

(in thousands except per share amounts)

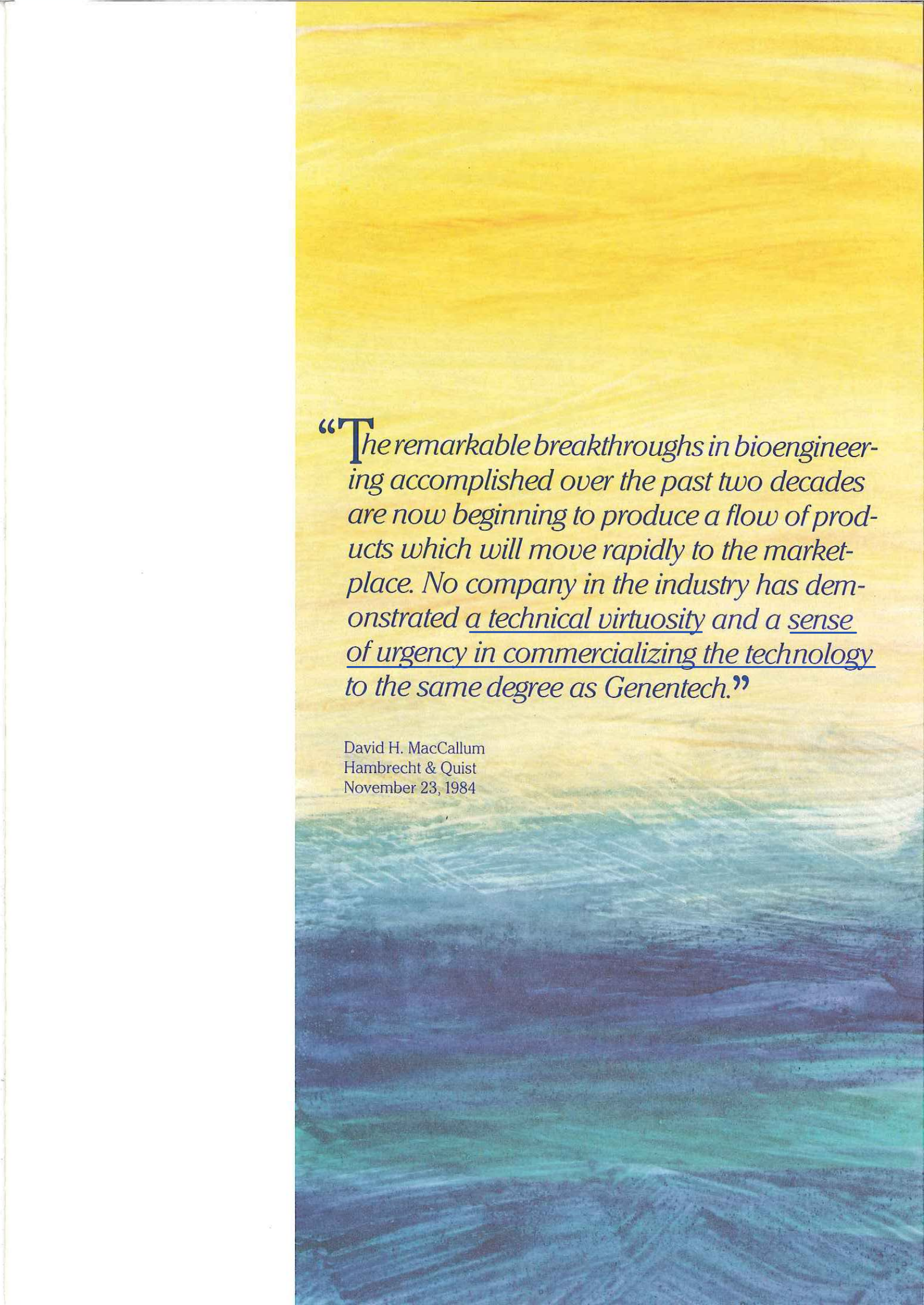
	1984	1983	1982	1981	1980
Total Revenue	\$ 69,786	\$ 47,003	\$ 32,603	\$ 21,281	\$ 8,962
Revenue from Operations	65,627	42,373	28,838	15,208	6,499
Income before					
Extraordinary Item	2,720	1,128	625	300	150
Per Share	.19	.08	.05	.02	.01
Net Income	2,720	1,128	625	503	236
Per Share	.19	.08	.05	.04	.02
Average Shares Outstanding	14,370	14,158	12,412	11,881	10,080
Total Assets	133,569	116,207	101,244	66,245	50,505
Long-Term Debt	11,549	5,326	6,285	6,766	47

The Company has paid no dividends.

About the cover:

Hippocrates, most famous of the ancient physicians, born on the Greek island of Cos c. 460 B.C., died c. 370 B.C., as envisioned by a 14th century Byzantine artist. From Greek Ms. (c. 1342) 2144, f. 10v., Bibliotheque Nationale, Paris.

The constant thread throughout *Corpus Hippocraticum*, the 72 books and 59 treatises attributed to Hippocrates, is a reliance on nature to aid treatment of illnesses. "The physician's chief function is to make conditions propitious for the natural forces in the body to reach harmony and, therefore, health." Twenty-three centuries later, the emerging therapeutics made possible by genetic engineering now show great promise of making Hippocrates' favored treatment scientifically viable. Today, recombinant DNA technology allows us to produce therapeutic proteins normally found in the body, and in effect, to harness nature's own mechanisms for treating diseases.



“The remarkable breakthroughs in bioengineering accomplished over the past two decades are now beginning to produce a flow of products which will move rapidly to the marketplace. No company in the industry has demonstrated a technical virtuosity and a sense of urgency in commercializing the technology to the same degree as Genentech.”

David H. MacCallum
Hambrecht & Quist
November 23, 1984

To Our Shareholders

1984 was a very good year for Genentech. We continued at the forefront of scientific discovery. Our products showed excellent and steady progress toward the marketplace. We reached our revenue goals. And we achieved our sixth straight year of profitability.

Financial Strength: Revenues increased in 1984 by 48% over 1983, with 94% of these revenues coming from operations: product royalties, contract revenue and production for clinical testing. Net income grew at a significant level but is still modest as we prepare for our next phase of rapid growth—from our own product sales.

Through a third private placement of limited partnership interests, we raised \$33.2 million to sponsor human clinical testing and development of tumor necrosis factor (TNF).

Progress of Products: *Humulin*[®], human insulin, sales in 1984 (and our royalty stream from them) tripled over the prior year. Licensed to Eli Lilly, the product is showing strong acceptance among diabetics and their physicians.

Roferon^{®-A}, human alpha interferon, licensed to Hoffmann-La Roche, has been tested in over 1,000 cancer patients in the past three and one half years. It is now pending FDA approval for use as an anti-cancer agent.

Protropin[®], human growth hormone, is in advanced testing for the treatment of short stature due to growth hormone deficiency. Last September, an advisory committee to the FDA agreed that Protropin appears to be effective and safe, but recommended seeking data on a somewhat larger group of patients. We are in the process of collecting this data for submission to the FDA in the second half of 1985.

Tissue-type plasminogen activator was the subject of a dozen highly favorable scientific papers at the annual meeting of the American Heart Association in November. One major study reported that blood clots in coronary arteries were dissolved successfully in 35 out of 49 heart attack patients. These studies are, of course, preliminary, and additional studies are being conducted to confirm safety and efficacy. To date, 400 patients have been treated with t-PA at 30 medical centers worldwide.

Gamma interferon is well along in Phase II clinical studies to determine its efficacy as an anti-cancer and anti-viral agent. Over 200 patients have been tested to date at 21 centers in the U.S., Europe, and Japan.

New Products: *Factor VIII* was cloned and expressed first by Genentech. This valuable blood-clotting protein is missing in most hemophiliac patients and donated human blood is currently the only source of material for replacement therapy. Recombinant DNA technology will provide a source of pure product, without the risk of AIDS or hepatitis.

We have licensed the product worldwide to [Cutter Laboratories](#), a Miles Laboratories division of Bayer AG. After two years of marketing, Genentech can share marketing rights with Cutter in the U.S.

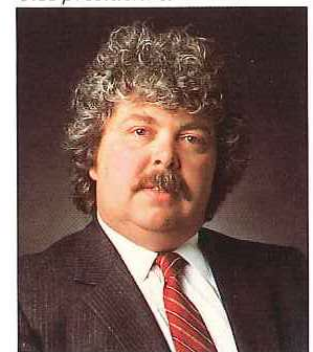
Robert A. Swanson,
chief executive officer & director



Thomas J. Perkins,
chairman of the board



Herbert W. Boyer,
vice president & director



Harry Faulkner, director



Amory Houghton, Jr., director



Tumor necrosis factors (TNFs) were also announced first by Genentech in 1984. Preclinical studies indicate that TNFs directly destroy certain tumor cells without measurably affecting healthy cells. They are also synergistic with gamma interferon, indicating that a combination therapy may be particularly effective against certain malignancies.

We have designated TNF as one of our top priority products to be brought into the U.S. marketplace under the Genentech label. An agreement has been signed with Fujisawa, Japan's third largest pharmaceutical company, to market the product in Japan.

Joint Venture Progress: *Genencor*—A.E. Staley, a multibillion dollar agribusiness company, acquired a one-third interest in our industrial enzyme venture with Corning Glass Works. Also in 1984, Genencor announced the development of Flavor Age™, a proprietary enzyme blend for use in cheese processing.

Travenol-Genentech Diagnostics, our joint venture with Travenol Laboratories, was chosen by the U.S. Department of Health and Human Services as one of only five companies licensed to develop a diagnostic test to detect the presence of antibodies to the HTLV III virus in blood specimens. The virus is believed to cause AIDS.

HP Genenchem, our joint venture with Hewlett-Packard, recently introduced its first product—TiterCalc™—an automated microtitration instrument system to dramatically speed data collection and analysis of enzyme-linked immunosorbant and other assays used in biotechnology.

Growing Patent Protection: Worldwide we have filed nearly 2,000 applications, and over 100 domestic and foreign patents have been issued to date. A number of patents which we believe are basic to our industry already have been issued to Genentech in England and other countries overseas. We expect issuance of their U.S. counterparts to accelerate in 1985.

Our People: We cannot say enough about the high quality and dedication of Genentech's employees. Like you, most are shareholders, and it is through their creativity and forward-thinking that Genentech has continued to maintain its leadership position in a highly competitive industry.

Looking Ahead: We expect 1985 to be another great year of growth and development. We welcomed the addition of G. Kirk Raab as president and chief operating officer in February 1985. His extensive pharmaceutical manufacturing and marketing expertise, most recently as president and chief operating officer of Abbott Laboratories, will be of great value to Genentech as we move our own products into the marketplace.

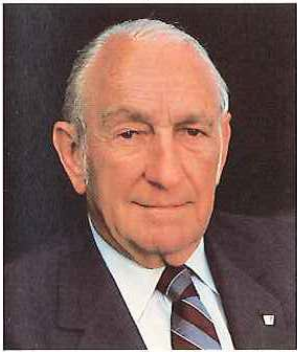
Also in February 1985, Boehringer Ingelheim, one of our important corporate partners, invested \$40 million in Genentech through a private placement of 750,000 shares of common stock. This investment will help provide the necessary funds for us to complete our transition from a research and development organization to a company making and marketing products under our own label.

Thank you, our shareholders, for your continuing support.

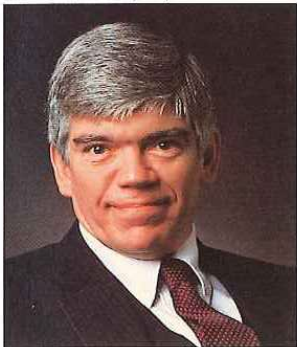
Donald L. Murfin, *director*



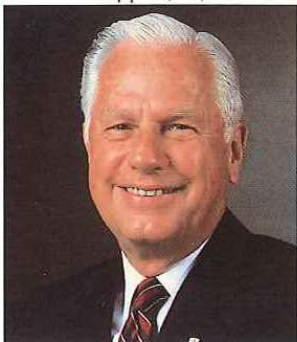
David Packard, *director*



John T. Potts, Jr., *director*



David S. Tappan, Jr., *director*



Robert A. Swanson

Robert A. Swanson
Chief Executive Officer

Thomas J. Perkins

Thomas J. Perkins
Chairman of the Board of Directors

February 28, 1985



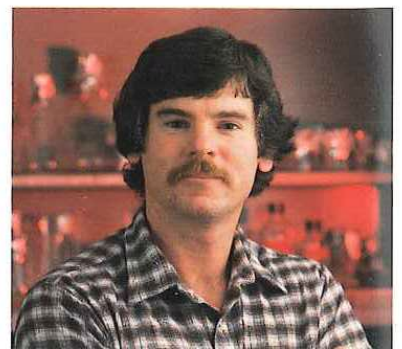
The Conquest of Smallpox

From the dawn of history, people have invoked deities and invented folk tales to protect against and explain diseases. Even as late as the 19th century, Japanese folklore envisioned heroes overcoming disease demons (at left, from a woodprint at the National Library of Medicine).

When smallpox epidemics struck, many ancient cultures questioned the ability of mankind to survive. Instances of the disease taking a third or more of entire populations in a single outbreak have been recorded. An estimated 3.5 million died in Mexico alone shortly after smallpox was introduced by the Spanish in the 16th century.

Crude (and sometimes fatal) inoculations probably were used as early as the 11th century in China. The disease was finally eradicated from the face of the earth during the 1970s following the successful formulation of a stable vaccine and a monumental campaign by the World Health Organization.

Genentech's most important resource is its pool of scientific talent. Hundreds of scientists are developing promising new therapeutics as well as conducting basic research in the underlying causes of major diseases.



Leading Causes of Death:

	1900	1980
Heart Disease	8.0%	49.6%
Cancer	3.7%	20.9%

Many diseases of the past such as smallpox, rheumatic fever, polio and tuberculosis have been controlled or eradicated through medical breakthroughs. As such diseases were conquered, new challenges emerged for modern medicine. Today the leading causes of death in the United States are heart disease and cancer. Genentech has focused its scientific and business resources to address these and other significant health problems.

Recombinant DNA technology will be a powerful factor in finding solutions to today's major killers. Exciting new products developed by Genentech to treat heart attacks (tissue-type plasminogen activator) and cancer (gamma interferon and tumor necrosis factors) are in the pipeline. Another is already on the market for the treatment of diabetes (human insulin).

Despite aggressive competition from both large and small companies, most of the potentially important pharmaceutical products from recombinant DNA technology have been cloned and expressed first by Genentech. These accomplishments help us attract the best people, give us lead time to market, and add significantly to our strong patent position.

Focus on Research: While our past outstanding scientific achievements speak for themselves, the future growth of our company depends on our continued productivity in both product-oriented and basic research.

Our product-specific research efforts are directed primarily at developing a steady flow of promising new therapeutics. Continuing research into the molecular structure and function of our existing products is also important. It affords a better understanding of their characteristics, which will lead to more effective use of Genentech products in the clinic and provide valuable direction in the design of second generation pharmaceuticals.

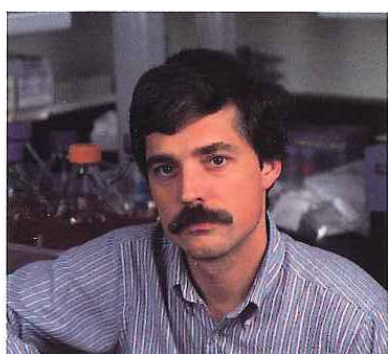
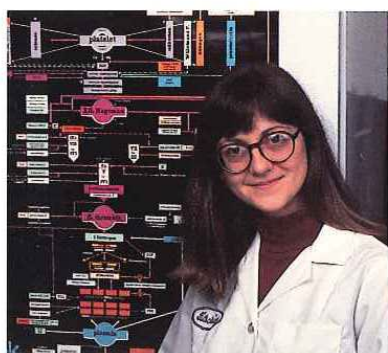
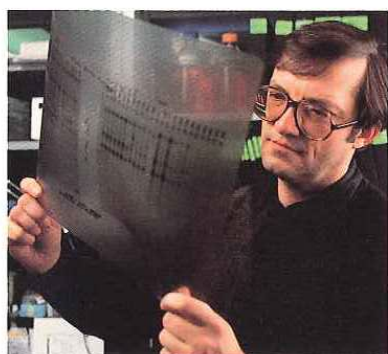
Recombinant DNA technology is a powerful tool for understanding how living things work on a molecular basis. Genentech scientists are using it to study the underlying physiological and pathological processes responsible for diseases such as cancer and heart attack. Armed with this understanding, Genentech can design effective new products for the treatment of many life-threatening diseases.

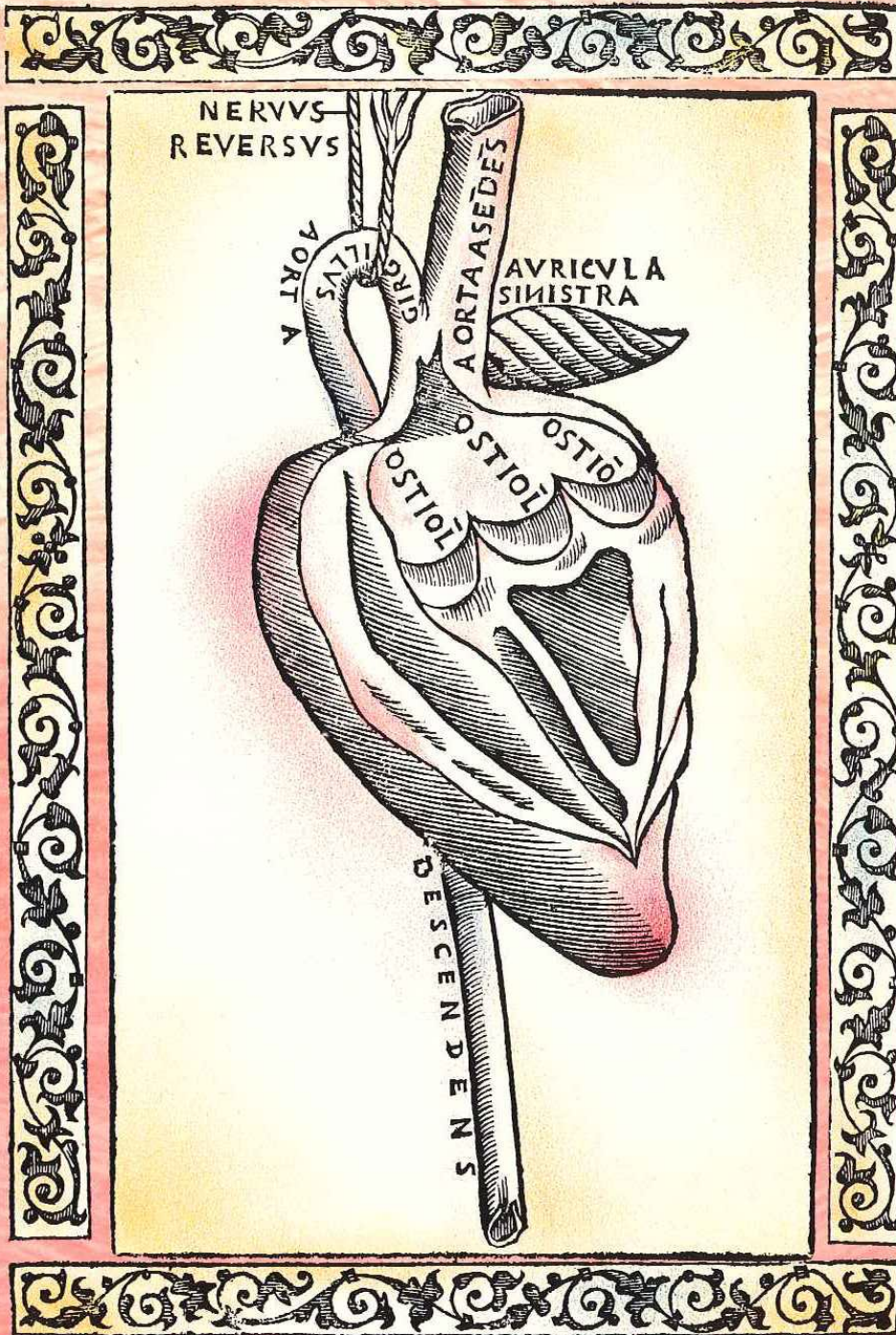
Staying on top of our fields of science requires close interaction between Genentech scientists and their professional and academic colleagues. Collaborations have produced exciting, innovative science and the exchange of new ideas, approaches and techniques. To date Genentech scientists have collaborated with hundreds of colleagues worldwide, and we welcome joint projects on basic as well as product-oriented research.

Our researchers publish their work in leading scientific journals. This important vehicle for peer review insures that top quality science continues to be done at Genentech.

Resources Focused On Major Health Problems

Recombinant DNA will be a powerful factor in overcoming today's leading causes of death.





The Conquest of Rheumatic Fever

The 16th century physician, surgeon and anatomist Giacomo Berengario da Carpi may have been the first to illustrate anatomy studies with fine engravings. Seen at left is a naive 1523 woodprint of the heart from his *Isagogae Breves* (courtesy Yale Medical Historical Library; color has been added for this presentation). Although credited with describing the valves of the heart, da Carpi believed the aorta carried not blood but vital spirit throughout the body.

Until the 1940s, rheumatic fever was the most common cause of heart disease. The principal treatment for rheumatic fever was bedrest which did little to allay the disease's most frequent outcome—permanent damage to the heart's valves and ultimate failure of the organ. A disease of childhood, rheumatic fever was not fully described until the 19th century, and was essentially conquered in the 1940s with the development of penicillin.



Heart Disease

Promising products to treat cardiovascular diseases are a major priority at Genentech.

Heart attack is the leading cause of death in the United States. Of the estimated 1.5 million Americans who **will suffer** an attack this year, about 550,000 **will die**. Nearly five million living Americans have experienced a heart attack or anginal chest pain or both.

To function properly, heart muscle requires an adequate supply of blood. If the arteries carrying blood to the heart become narrowed by the buildup of fatty deposits (plaque), a condition known as atherosclerosis results. Blood then moves with progressive difficulty through the narrowed channels, making it easier for a clot to form. When a clot blocks the flow of blood, a heart attack may occur. Heart attack results in damage or destruction to the heart muscle as tissues begin to die from lack of oxygen. However, if blood flow can be restored by dissolving the clot in time to prevent irreversible tissue damage, it may be possible to save a substantial part of the heart muscle.

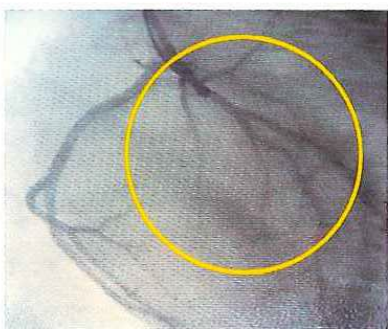
Genentech has addressed this major killer disease by using recombinant DNA (rDNA) technology to produce a **potent, natural** blood clot-dissolving agent called tissue-type plasminogen activator or t-PA. t-PA is found in minute quantities in the circulatory system and acts to initiate normal blood clot-dissolving activities. However, when a massive clot forms—in the coronary artery for example—the body does not produce adequate amounts of t-PA to dissolve the clot.

By rDNA technology, Genentech has produced t-PA in large quantities. In clinical trials, t-PA has shown excellent preliminary results in treating heart attack victims—in an early study blood clots were dissolved successfully in a **majority** of heart attack patients within 30-45 minutes after the intravenous administration of t-PA.

Studies of t-PA in larger numbers of patients are being conducted to corroborate the initial results and provide additional evidence of the drug's safety in the treatment of heart attack victims.

Focus on Research: Genentech scientists are continuing to study the molecular structure and function of t-PA to determine more precisely how it does its job. Interest extends to other important proteins found in the blood, such as human serum albumin and Factor VIII. An essential blood-clotting protein, Factor VIII is the largest and most complex protein ever created artificially in the laboratory—a tour-de-force for Genentech's research team that developed advanced methods to study and characterize the protein and its gene. Factor VIII induces clotting in healthy people but is absent or inactive in individuals with hemophilia A, a genetic disease characterized by spontaneous internal bleeding, particularly in the joints. Most hemophiliacs now rely on infusions of impure Factor VIII extracted from donated human blood plasma that carries some risk of infection, notably hepatitis and AIDS.

Tissue-type plasminogen activator (t-PA), Genentech's blood clot-dissolving agent, is in clinical trials with heart attack victims. These X-rays from preclinical canine testing show, at left, occlusion of a coronary artery and impaired blood flow caused by a clot, and, at right, restored blood flow within less than an hour after administration of t-PA.



Cancer

Genentech is developing a family of proteins which encompass a spectrum of anti-cancer activity.

Cancer is currently the number two killer in the U.S. The American Cancer Society estimates that 67 million Americans now living eventually will be treated for cancer—nearly 30% of the population based on the current incidence of the disease. Each year about 870,000 new cancer cases are diagnosed. Nearly 450,000 people died from cancer last year.

Cancer is not a single disease, but actually well over 100 different diseases. Since it is highly unlikely that any one drug will be effective against all cancers, Genentech is developing a family of proteins—including tumor necrosis factors and gamma interferon—which encompass a spectrum of anti-cancer activity.

Genentech scientists were the first to announce the production of tumor necrosis factors (TNFs) by recombinant DNA technology. Preclinical studies indicate that TNFs are unique in that they kill certain types of cancer cells with little or no harm to normal cells. The potential of TNFs to act selectively on cancer cells may prove a significant advantage over conventional chemotherapeutic agents which are toxic to both cancerous and healthy cells. Phase I human safety studies of TNF are anticipated to begin in the second half of 1985.

Phase I human safety studies of gamma interferon, a protein of the immune system, have been completed successfully. Although Phase I studies are not intended to evaluate efficacy, preliminary evidence of anti-tumor activity was observed. Consequently Phase II efficacy studies have been targeted toward specific cancers and are now well underway.

Roferon[®]-A alpha interferon, licensed by Genentech to Hoffmann-La Roche, is pending FDA approval based on data showing it to be safe with demonstrable anti-tumor activity against several types of cancer.

Focus on Research: Laboratory studies are in progress to examine the potential synergistic action of gamma interferon with TNFs and chemotherapeutic agents. Preliminary results suggest that a combination of gamma interferon and TNF may prove more effective than either drug alone in certain cancers. Studying the proteins of the immune system and the immunoregulation process is one example of how continuing research may lead to improved patient therapy.

Today basic research on cancer is at an exciting stage. In the last few years more than a score of oncogenes, genes that cause cancer, have been identified. These are altered versions of ordinary benign genes present in normal cells. Like most genes, they direct the production of proteins. But the proteins encoded by oncogenes function abnormally, somehow causing a normal cell to turn into a cancer cell. Recombinant DNA technology has provided the most powerful investigative tools ever available to study this process. And Genentech scientists have been in the forefront of the study of oncogene function and structure.

← **Magic bullets!**

Live human cervical cancer cells are seen here before and after (left and right, respectively) treatment with tumor necrosis factor (TNF), a potentially important new anti-cancer agent announced by Genentech in 1984. At right, cancer cell walls are being disrupted as the cells begin to die.



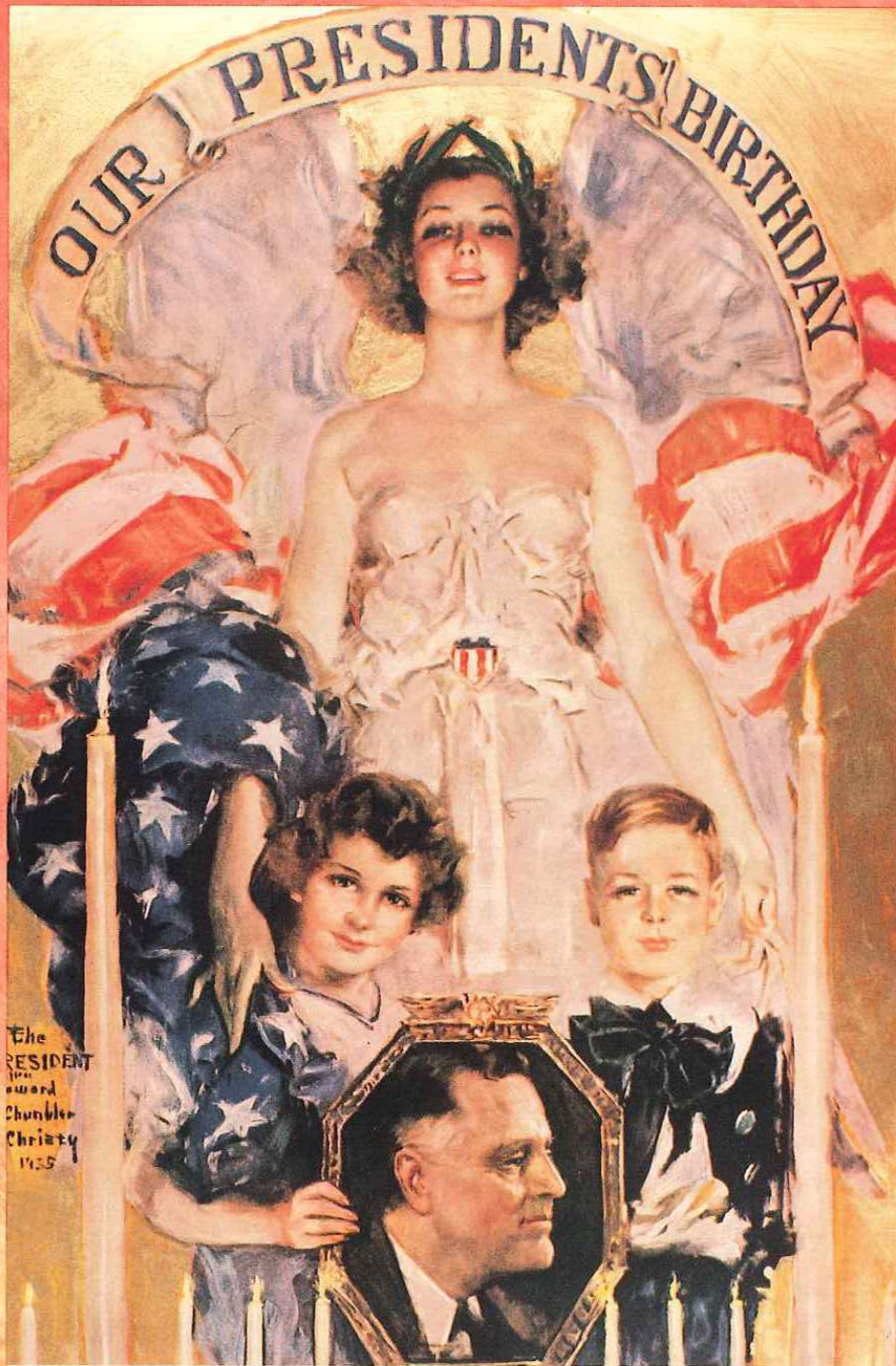
The Conquest of Tuberculosis

As early as the 11th century, tuberculosis was well described by Avicenna in his *Canon of Medicine*, a work that became the standard reference for most of the world's physicians and universities through the mid-17th century. (Seen at right is an illustration from a 15th century Hebrew translation of the *Canon* from the original Arabic, courtesy Biblioteca Universitaria, Bologna.)

Tuberculosis, also called consumption and the white plague, was one of the most persistent and ubiquitous scourges. Death rates of more than three times that of today's major killer, heart disease, have been recorded.

Although the tubercle bacillus was isolated in 1882, as late as 1940 the principal treatment was injection of air into the chest cavity to compress and collapse the lungs, thereby "providing the rest which favors healing in all body tissue." Ultimate control of the disease began with the discovery of streptomycin in the mid-1940s.





The PRESIDENT
Edward
Chubler
Christy
1935

The BIRTHDAY BALL
for the *PRESIDENT*
WEDNESDAY EVENING JANUARY 30th 1935

The Conquest of Polio

Poliomyelitis, or infantile paralysis, is largely a disease of the 20th century. The first great epidemic struck in the U.S. in 1916 when 27,000 cases were reported. Six thousand died, mostly children, and many thousands more were left crippled or paralyzed. In New York City alone, 2,000 died of polio that year. Terrified families attempted to flee the city.

Franklin D. Roosevelt, himself a polio victim, provided the impetus for the National Foundation of Infantile Paralysis and the famous March of Dimes campaigns to raise funds for research. Effective immunization came when the Salk vaccine entered large-scale clinical trials in 1954. When the vaccine was pronounced 90% effective the following year, men and women openly cried in the streets and many storefronts were covered with signs proclaiming, "Thank you, Dr. Salk."

Memorabilia from the polio March of Dimes era are seen here, courtesy of the Franklin Delano Roosevelt Museum, Hyde Park, New York.



Genentech has also addressed other significant health problems including endocrine disorders such as diabetes (ranked by the American Diabetes Association as the number three killer disease in the U.S.), growth-related disorders and infectious diseases.

Human insulin (Humulin®) for the treatment of diabetes was the first pharmaceutical product developed by Genentech. Licensed to Eli Lilly, it was also the first recombinant product to reach the market. The product was introduced in early 1983 and is now beginning to replace an increasing portion of the existing market for animal insulins.

Genentech's human growth hormone (Protropin®) for the treatment of hypopituitary dwarfism in children has undergone more than three years of clinical testing. An FDA Advisory Committee met in September 1984 to review the clinical data. Their response was favorable, concluding that Protropin is efficacious and appears to be safe based on data submitted to date. The committee recommended that safety data on a larger number of patients be collected for FDA review. Genentech has worked closely with the FDA to develop an approach that will lead to marketing approval with as little delay as possible.

Bovine interferon (Interceptor®) is being tested as a treatment for Bovine Respiratory Disease ("shipping fever"). Over 3,000 feedlot cattle were treated with the product. Preliminary analysis indicates a reduction in the incidence of morbidity. Genentech is evaluating various methods of administration as well as its overall economic value to cattlemen.

Focus on Research: Continued research on gamma interferon suggests that it could have a broader spectrum of application than originally anticipated. New data from Genentech's research laboratories show that this lymphokine activates macrophages, cells in the body's immune system directly involved in the body's defense against a variety of infections. These findings could expand the product's potential to include treatment of bacterial and parasitic infections.

In basic research, scientists are studying certain hormone growth factors and their receptors. Understanding the process of cell growth and differentiation has potential application in areas such as cancer (characterized by uncontrolled cell growth) and wound healing, among others.

For example, the gene for the insulin receptor was cloned recently by Genentech, in collaboration with academic scientists. Receptors are proteins found on the surface of a cell that signal it to respond to specific substances outside the cell. The insulin receptor is important because it is found on almost all human cells. Scientists can now study, at the molecular level, how a cell uses insulin and understand more about the nature of diabetes. This could lead not only to the development of improved products for the treatment of diabetes but also to advances in the study of other endocrine disorders.

Endocrine Disorders & Infectious Diseases

Genentech scientists are studying the causes of endocrine disorders and infectious diseases at the molecular level.



Genentech bottled some 250,000 vials for preclinical and clinical testing during 1984.

In 1977, the commercial viability of recombinant DNA technology was first demonstrated by Genentech. Scientists synthesized the gene for making the protein somatostatin and spliced it, together with various genetic control elements, into the DNA of an ordinary bacterium. The bacterium then proceeded to manufacture the human somatostatin protein. They proved for the first time that it was possible to clone and express a useful protein—in a cell that does not normally produce that protein—through the use of recombinant DNA technology. The creation of our entire industry stems from the successful completion of that laboratory experiment.

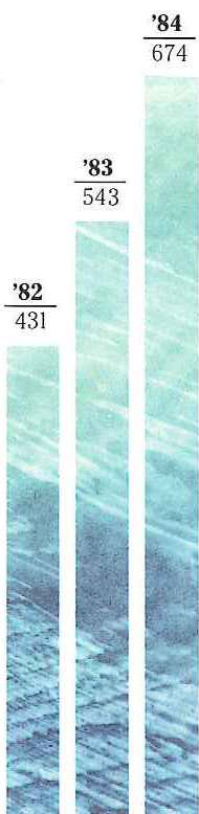
Today, the hurdle in biotechnology is the ability to take a product through the complex developmental processes which lie between the first detection in the laboratory of small amounts of protein and the shelf of the hospital pharmacy where the final product is sold.

These processes are more complex than taking a conventional pharmaceutical into the marketplace, because the products themselves are much more complex. Aspirin, for example, has a molecular weight of 180. t-PA has a molecular weight of 60,000. Molecular weight tells only a fraction of the story. The ability of proteins such as t-PA to do their job is based not simply on their chemical composition or weight, but on their complex physical shape. The molecule must have the right number of active sites in exactly the right configuration in order to perform its proper function. Therefore, the product's structural integrity must be maintained in each step of the production process. This requires the highest degree of sophistication in the handling of recombinant products.

Just as Genentech created an industry when it pioneered the cloning and expression of the first useful recombinant product, it has continued to lead the field through the process of product development. Our pioneering work encompasses developing different systems of expression, large-scale fermentation, recovery and purification of proteins, developing formulations and designing assays for quality control, which constantly monitor the purity, potency, stability, safety and identity of products utilized in clinical research. The following pages examine some of Genentech's resources and accomplishments that have enabled us to move our products out of the laboratory and through the development process for entry into the marketplace.

On The Way To The Marketplace

Genentech continues to lead the industry in the processes of product development and manufacturing.



◀ Total Employment

Expression Systems

Genentech has developed over ten different cellular systems for large scale production.

Microorganisms have long been used for the production of wine, beer and antibiotics. Today recombinant DNA technology utilizes microorganisms and mammalian cells as mini-factories to produce useful proteins they would not ordinarily make. Genetic instructions (DNA) for making a particular protein are introduced into the microorganism or mammalian cell, commonly referred to as an expression system. When the cell divides, the inserted gene is also copied or "cloned." In this process, the cell follows the instructions coded in the gene and makes or "expresses" the desired protein, all in a highly controlled manner.

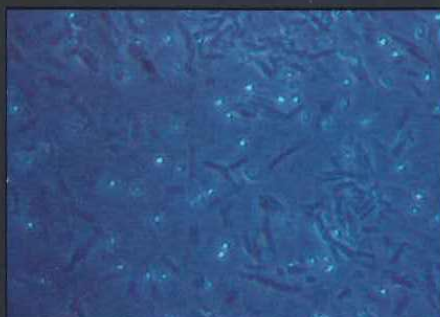
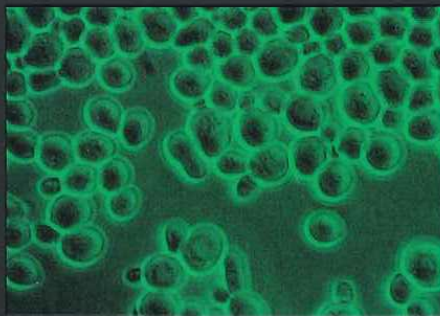
The selection of the correct expression system for large-scale production, however, is a tremendous development task in its own right. The system that is used at a laboratory bench to express a product may not prove to be the optimal system for large-scale production.

Genentech has in place over ten different expression systems from which to choose when evaluating the most economic and efficient system for a given product. These include various strains of bacteria (*E.coli*, bacillus), yeast and mammalian cell lines.

Our strength in molecular biology and fermentation research and development allows various expression systems to be evaluated in parallel, saving months and sometimes years of work in assessing and selecting the appropriate system for commercial production.

Approximately 35 individuals at Genentech are involved exclusively in developing these expression systems for large-scale production.

Critical to the capacity to produce commercial quantities of recombinant DNA products is the ability to determine the most efficient expression system for manufacturing. Representative of the cellular systems used by Genentech are (clockwise from top left) yeast, mammalian cells, E. coli and bacillus all seen here magnified 1000 times except the mammalian cells which are magnified 400 times.



'84
35

'83
26

'82
13

Expression Systems Staff ▶

Fermentation

Genentech has the resources in place today to produce commercial quantities of most of its major products.

The evaluation of the most effective expression system involves its fermentation in carefully designed experiments (usually at the 10-liter scale) to examine the potential productivity in large-scale production. Genentech has dedicated 40 ten-liter fermenters to study scale-up of recombinant products, allowing simultaneous runs to determine the product yield in several different expression systems. The results are then compared and evaluated to select the system that yields the most biologically active product.

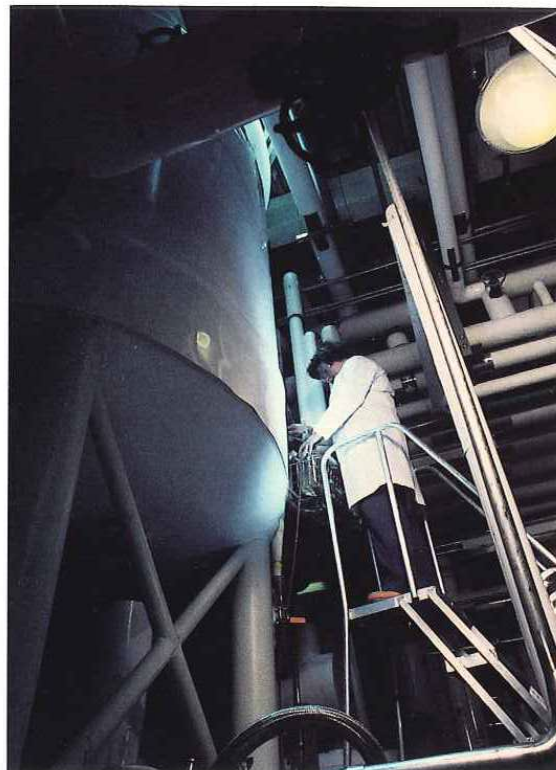
Once the most effective expression system has been selected, the process is scaled-up to 100 liter, 1000 liter or 10,000 liter vessels. These fermenters are then used for the manufacture of product in both clinical and commercial quantities.

Genentech has the physical and human resources in place today to produce major products within its present manufacturing facility.

In 1984 Genentech had 47 people working in three shifts producing over 5,000 batches of product, testing a variety of expression systems for a range of products, developing large-scale fermentation processes and manufacturing more than enough material for clinical trials in 90 locations worldwide.



◀ Fermentation Operations Staff



A 10,000-liter fermenter has the capacity to produce commercial scale quantities of recombinant pharmaceutical products.

Recovery & Purification

Innovative and proprietary methods of purification and recovery have been developed and are being used by Genentech.

After a protein has been manufactured by fermentation, it must first be separated from the cells that produced it and then purified to pharmaceutical standards. This is a complex task. Because *E. coli* bacteria usually synthesize and store the protein inside the cell, the cells must be broken up to release the protein. In other systems, such as mammalian cells or yeast, the cells can be directed to secrete the protein so cell rupture is not required. But in every case, the desired protein must be separated from many other proteins manufactured by the cell. For example, a bacterium like *E. coli* produces one to two thousand proteins in addition to the desired

one. The product must be separated from other proteins and purified to the extraordinarily high standards of pharmaceutical applications.

Proteins are conventionally isolated according to various physical properties such as molecular weight and electrical charge. Systems employing such techniques, referred to as chromatography, have the ability to isolate a protein to approximately 95% purity. Innovative and highly proprietary methods have been developed by Genentech to meet the more exacting standards of purity demanded of pharmaceuticals produced by recombinant DNA technology. While we emphasize purity, for a process to be commercially viable, there are many other product characteristics to consider as well as cost, scale and timing targets.

In 1984 Genentech had nearly 50 people in process development dedicated to developing, evaluating, improving and implementing the recovery and purification processes for our recombinant products.

Genentech has developed proprietary processes essential to the difficult task of recovery and purification of recombinant DNA pharmaceutical products.



Recovery & Purification Staff ▶

'84
46

'83
36

'82
33

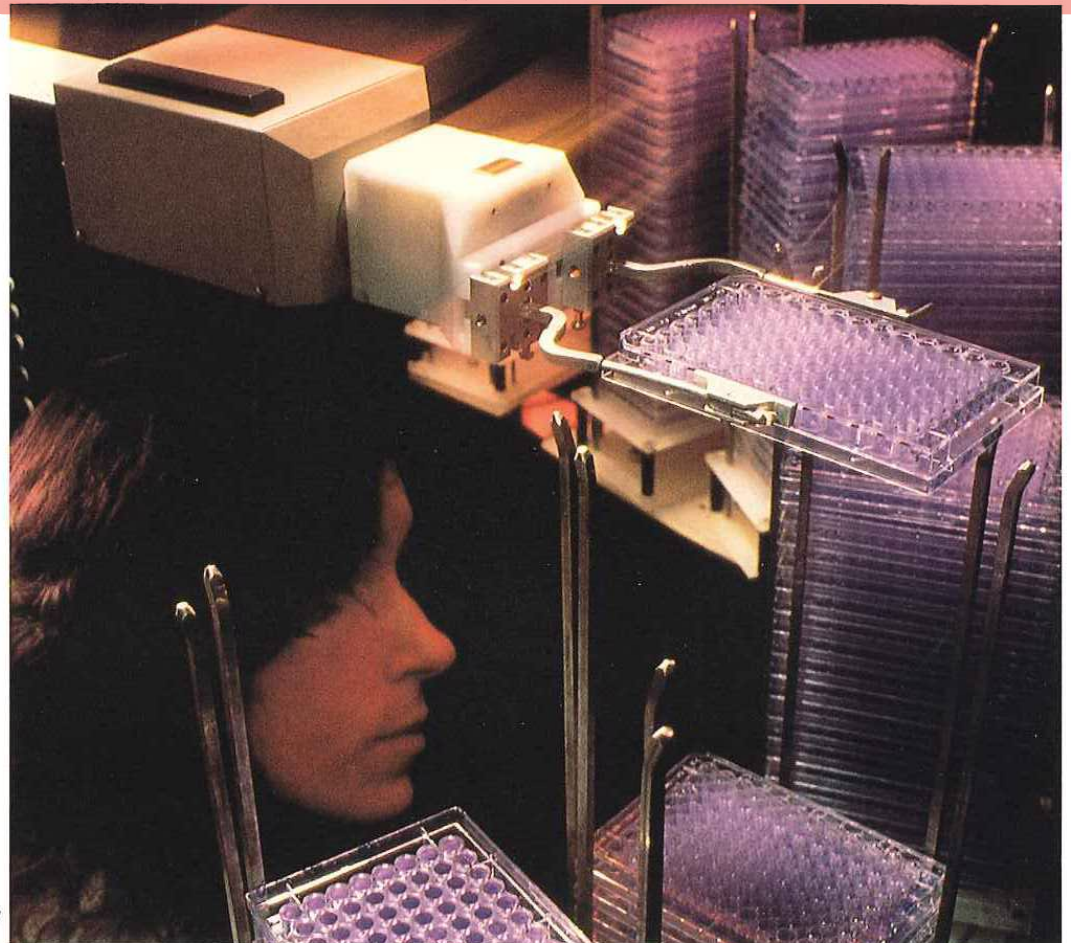
Formulation & Assays

Genentech has met the challenging formulation and assaying tasks posed by the size and complexity of proteins which can now be produced by rDNA technology.

Once a protein is purified, it must then be formulated—combined with other substances to present the protein in a form suitable for the intended medical use and route of administration. Furthermore, the formulation must provide a stable environment for the protein. Large proteins, whose production is now made possible by recombinant DNA technology, have a natural tendency to aggregate or change. Therefore, formulations must be carefully designed to maintain the complex structural integrity that makes the proteins biologically active and allows them to function as nature intended. In 1984, Genentech had more than a dozen people developing formulations for our products.

Throughout each step of the process—fermentation, recovery, purification and formulation—samples must be constantly assayed or tested to monitor purity and to determine the quantity of biologically active material present. The large size and complexity of proteins make this a challenging task because traditional or standard assays are often inadequate for these purposes. In 1984 Genentech had 24 scientists continuously designing and validating assay methodologies. They conducted more than 500,000 assays in the process of research, development and manufacture of our products.

Genentech laboratories perform massive numbers of assays, and employ automation techniques to handle the workload, speed the process and free scientists and technicians to focus on assay analysis. The automation system shown here runs 24 hours a day.



'84
39

'83
24

'82
14

◀ Formulation & Assay
Development Staff

Quality Assurance/ Quality Control

New processes to assure consistent high quality of rDNA products have been developed by Genentech.

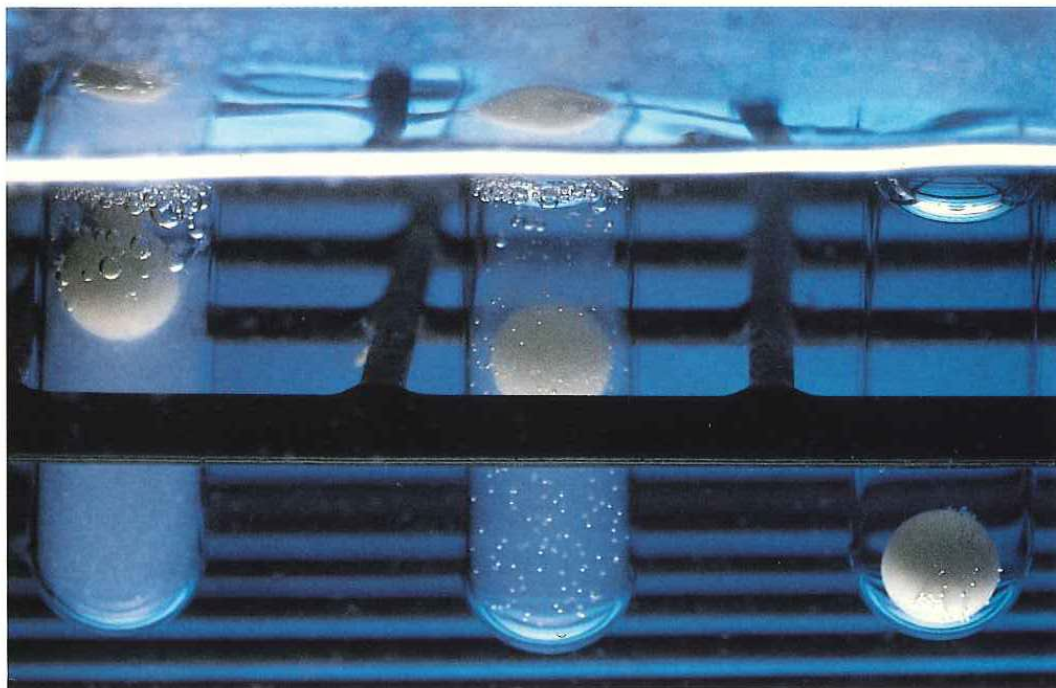
During the process of manufacturing, both the product and the raw materials involved in its manufacture must be evaluated continually for quality characteristics. This not only involves a substantial number of assays for the product, but examination of raw materials as well. On the average there are over 100 raw materials—from the nutrients that feed the host cells to the glass vials in which the final product is bottled—that are involved in the manufacture of individual products. Each of these must also be tested for its safety, purity and identity. More importantly, quality assurance and quality control systems must be set in place, systems with built-in checks and balances, to assure that nothing will compromise our products' integrity.

In addition to evaluating the raw materials used in manufacture, the product itself must be tested to assure that its identity, integrity and potency have been maintained throughout the manufacturing process. The characteristics of the product are quantified through a complex set of assays involving electrical charge, chemical composition and biological activity.

Underlying the extensive system of checks and balances in Genentech's pharmaceutical quality assurance/quality control program is a fundamental attitude regarding quality. It is a commitment to quality that is found not just in the quality control staff, but in all Genentech employees.

In 1984 Genentech had over 55 employees dedicated to this area of quality assurance and quality control.

A production run of tissue-type plasminogen activator (t-PA) is seen here being tested for efficacy before shipment. In the tube at left, a bead is trapped in a laboratory-created blood clot. Shortly afterward, at center, a bead begins to sink as the clot, treated with t-PA, begins to dissolve. At right, the clot has been completely dissolved: the bead drops to the bottom and the fluid is clear.



Quality Assurance &
Quality Control Staff ▶

'84
56

'83
40

'82
25

Clinical Research

Genentech products are in human clinical trials at scores of medical centers worldwide.

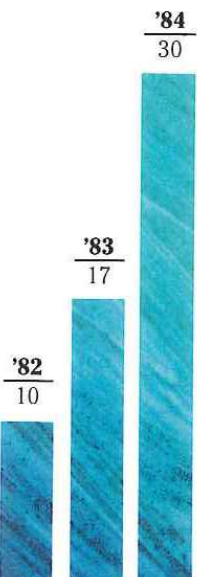
Once a product is manufactured and enters the clinic, another elaborate system of checks, balances and reporting comes into play as the safety and efficacy of Genentech's products are measured and monitored during patient testing. Thousands of hours of work go into the preparation necessary to begin clinical testing on human patients. Leading medical centers where research will be conducted are selected. Working with specialist physicians and the U.S. Food and Drug Administration (FDA), methods for conducting the research are established.

The application filed with the FDA to investigate the use of a new drug in human clinical research reports on all the studies conducted in the laboratory to justify initial testing in humans. During the course of the clinical studies, thousands of pages of data are generated, analyzed, condensed and finally submitted to the FDA for their review.

In 1984 human clinical research on products Genentech will market was conducted in 90 different centers around the world. More than 30,000 pages of case report forms were collected from those studies. Thirty people at Genentech were involved in gathering, analyzing and documenting this information.



Dr. Herman (Chip) Gold, cardiologist at Boston's Massachusetts General Hospital, was one of the first medical investigators to conduct human trials with Genentech's tissue-type plasminogen activator. Clinical trials for t-PA, human growth hormone and gamma interferon were conducted at 90 medical centers during 1984.



◀ Clinical Research Staff

Corporate & Partners & Joint Ventures

Commercialization agreements enable us to share clinical research costs and maximize our marketing efforts.

In preparation for worldwide commercialization, we work with major corporations who are in a position to contribute related skills and experience to the rapid development of our products.

For our priority products, European and Japanese commercialization agreements are in effect with leading pharmaceutical companies. These agreements—such as our contracts with Mitsubishi Chemical and Kyowa Hakko for t-PA rights in Japan, and Boehringer Ingelheim for t-PA rights in Europe—generate contract revenues today and product sales or royalties in the future. Today these agreements enable us to share

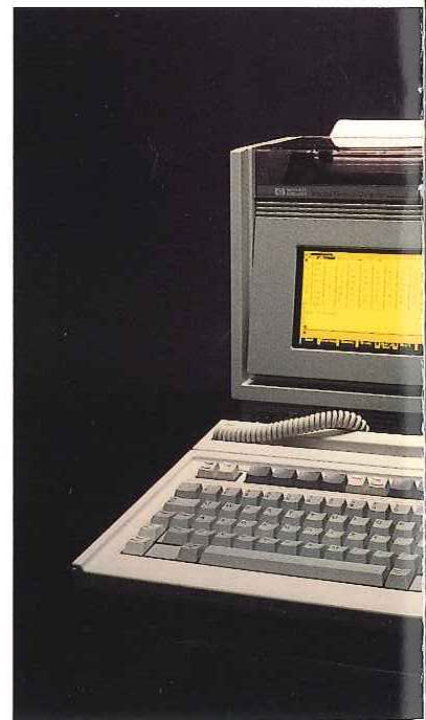
clinical research costs and maximize our efforts toward early market entry.

In the case of gamma interferon, for example, our European contract partner is Boehringer Ingelheim, and our Japanese partners are Daiichi-Seiyaku and Toray Industries. While we oversee U.S. clinical studies on the use of gamma interferon against selected cancers and viral diseases, these partners are conducting complementary studies on different anti-cancer and anti-viral indications. We divide the tasks to broaden our effort. An excellent system for exchanging preclinical and clinical data enables us to determine more quickly the product's overall range of effectiveness.

Three joint ventures with strong partners enable us to capitalize on additional opportunities arising from our basic technology. They address new areas of high growth potential, while Genentech's main thrust remains focused on pharmaceuticals for human health care.

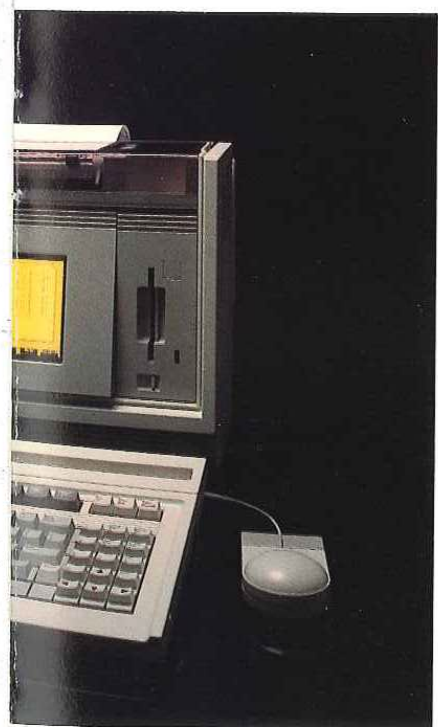
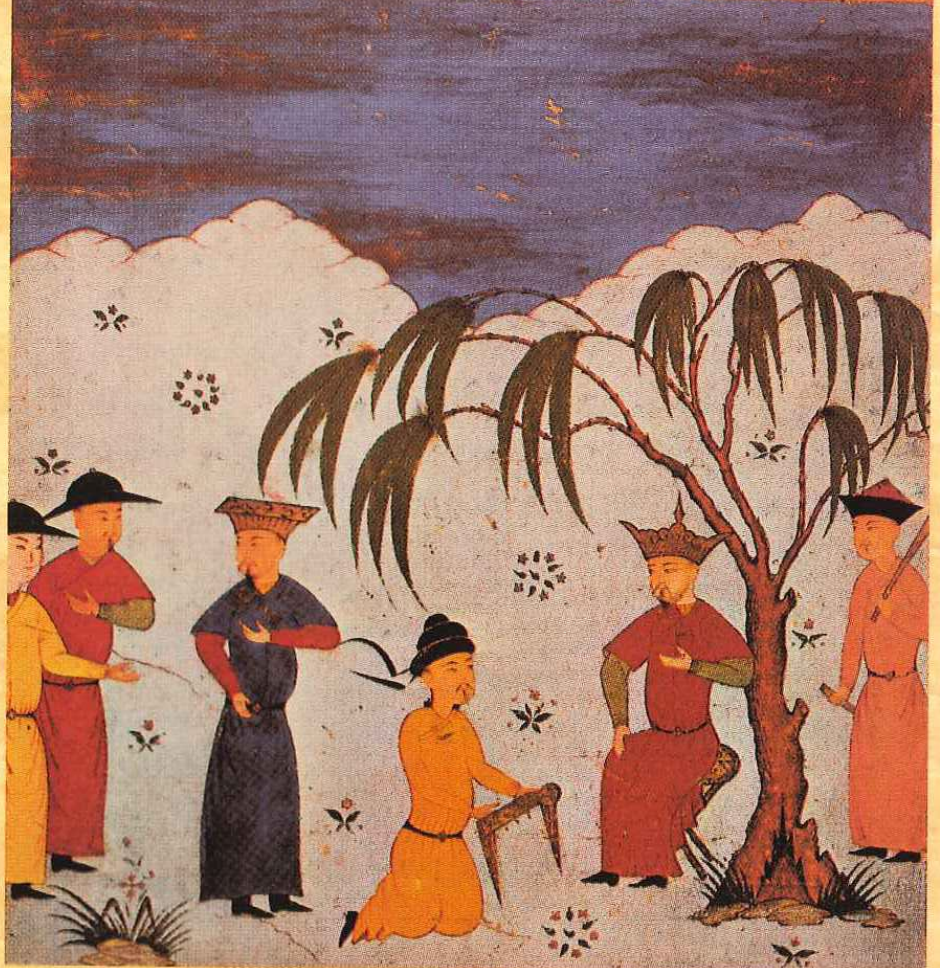
All three ventures are doing well. Genencor, with Corning Glass Works and A.E. Staley, is selling conventional industrial enzymes and has developed recombinant DNA products for use in food processing and other industrial applications. Travenol-Genentech Diagnostics, with Travenol Laboratories, is selling traditional clinical diagnostic products and applying our technology to new developments—such as a diagnostic test to identify the presence of antibodies to the HTLV III virus implicated as the cause of AIDS. HP Genenchem, with Hewlett-Packard, is developing instrumentation for use in biotechnology. This company recently introduced its first product—TiterCalc™—an automated microtitration instrumentation package that dramatically speeds up tedious and repetitive collection and analysis of scientific data.

The first product of HP Genenchem, a joint venture with Hewlett-Packard, was announced in early 1985. Called TiterCalc™, the hardware/software package automates certain biotechnology data collection and analysis functions.



In ancient times, medical knowledge was shared internationally, as symbolized here by Ghazan Khan, Mongol ruler of Persia, receiving books from Chinese emissaries. Today, Genentech and its international partners maximize the benefits of clinical testing by dividing tasks and sharing data. The art at right is from Rashid al-Din's *Universal History*, c. 1425, in a private collection to be exhibited at *Treasures of Islam*, Musee Rath, Geneva, June 25-October 27, 1985.

چیزی از آن نفع بدن و لا یات بر سید و درین وقت که بادشاه اسلام خلفه سلطانه و اعلاشاند فرموده که تا زنج
 مبارک را تالیف کنند و بنویسند چون ممالک مذکور را در قدیم الایام میج بادشاه سیکانده سخن کرد اینک بود و در آن
 مذاکت نیامده خبک بزخان و اروق نام دارا و انرا مستخلص کرد اینک و در تحت تصرف خویش آورده اند و بان شب
 حکایت آن درین تاریخ آوردن ضروری بود بادشاه اشلام خلفه الله ملکه فرموده که تواریخ اجوال آن مملکت و بادشاه
 آنجا برنسیل ایجاز و اختصار احقاق کرده شود بر وفق فرمان نافذ از آن نافع و مطاع از حکای ختای لسانی و مکتوب
 نام هر دو بر علم طب و نجوم و تاریخ ختای واقف اند و بعضی از آن کتب ختای با خود آورده و از معانی را مستتر کتب تواریخ
 که داشتند حاضر کردند و تقریر کردند که هر چند تاریخ اهل ختای عظیم قدیم است و عدد سالها را در او از ایشان برجی
 که پیش ازین با خواجه نصیر الدین تقریر کرده اند لیکن تاریخی که اسامی بادشاهان آنجا در آن شروع و متصل است و بنام حکایت
 بران نموده اند و درین وقت میان اهل ختای شهری دارد و تاریخی درست و محقق است و تمام حکایت و داستان بران نموده



Patents

The U.S. Supreme Court confirmed in 1980 that patents would be available for biotechnology.

It is axiomatic that pioneering patents spring from pioneering science. Genentech's unparalleled record of scientific firsts in recombinant DNA technology supports the expectation that its products will be well-protected by patents. Indeed, the likelihood of strong patent protection is a key criterion in the company's selection of core products that receive the majority of resources in development.

Early recognition of the importance of patents led Genentech to take a proactive role in development of the law in this area. The company participated as a "friend of the court" in the United States Supreme Court case that confirmed, in 1980, that patents would be

available for the products of biotechnology. And in 1984 the company actively supported Congress' move to include recombinant DNA processes in legislation extending the life of U.S. patents, restoring time lost due to FDA review of applications for market approval.

Genentech's in-house patent capability was strengthened by the addition in 1984 of senior patent attorneys from major health care companies. To date more than 100 foreign and domestic patents have been issued to the company and nearly 2000 applications are pending worldwide.

Being first to market with our products and protecting that position is a corporate goal that has been recognized from the beginning. Genentech's confidence in its ability and commitment to protect through patents its core and other products is shared by the major corporate partners helping to carry those products to market in the United States and elsewhere. As the Supreme Court said in affirming patents for new microorganisms, the result will be "a positive effect on society through the introduction of new products and processes of manufacture into the economy, and the emanations by way of increased employment and better lives for our citizens."

Report of Certified Public Accountants

*The Board of Directors and Shareholders
Genentech, Inc.*

We have examined the accompanying consolidated balance sheets of Genentech, Inc. at December 31, 1984 and 1983, and the related consolidated income statements, statements of shareholders' equity and changes in financial position for each of the three years in the period ended December 31, 1984. Our examinations were made in accordance with generally accepted auditing standards and, accordingly, included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

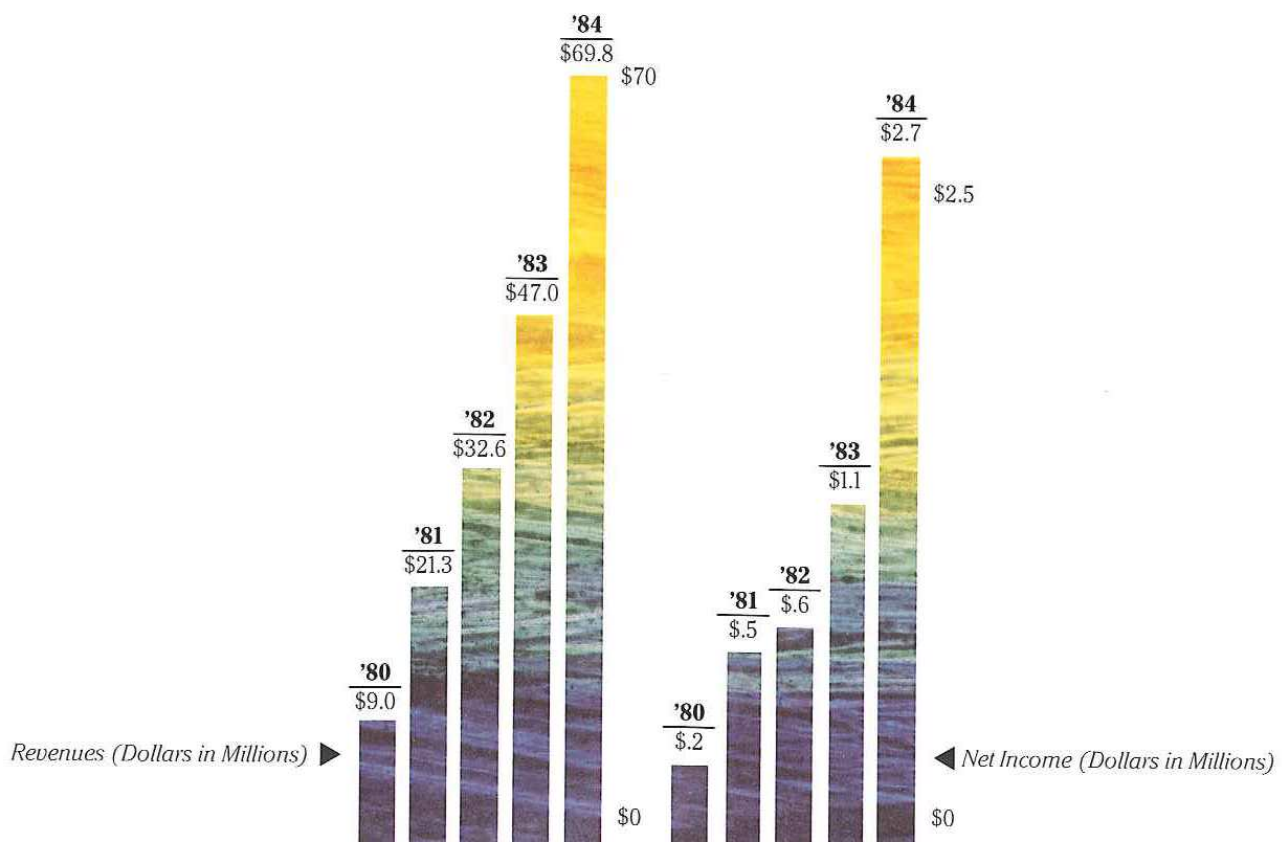
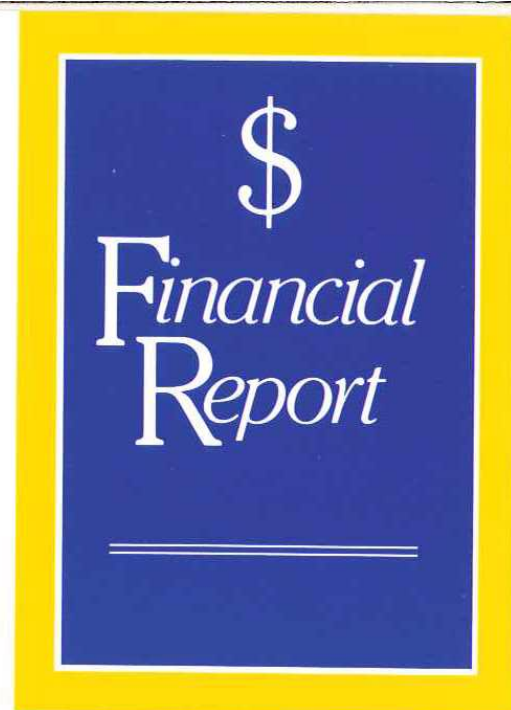
In our opinion, the statements mentioned above present fairly the consolidated financial position of Genentech, Inc. at December 31, 1984 and 1983, and the consolidated results of operations and changes in financial position for each of the three years in the period ended December 31, 1984, in conformity with generally accepted accounting principles applied on a consistent basis during the period.

Arthur Young & Company

Arthur Young & Company

San Jose, California

January 31, 1985



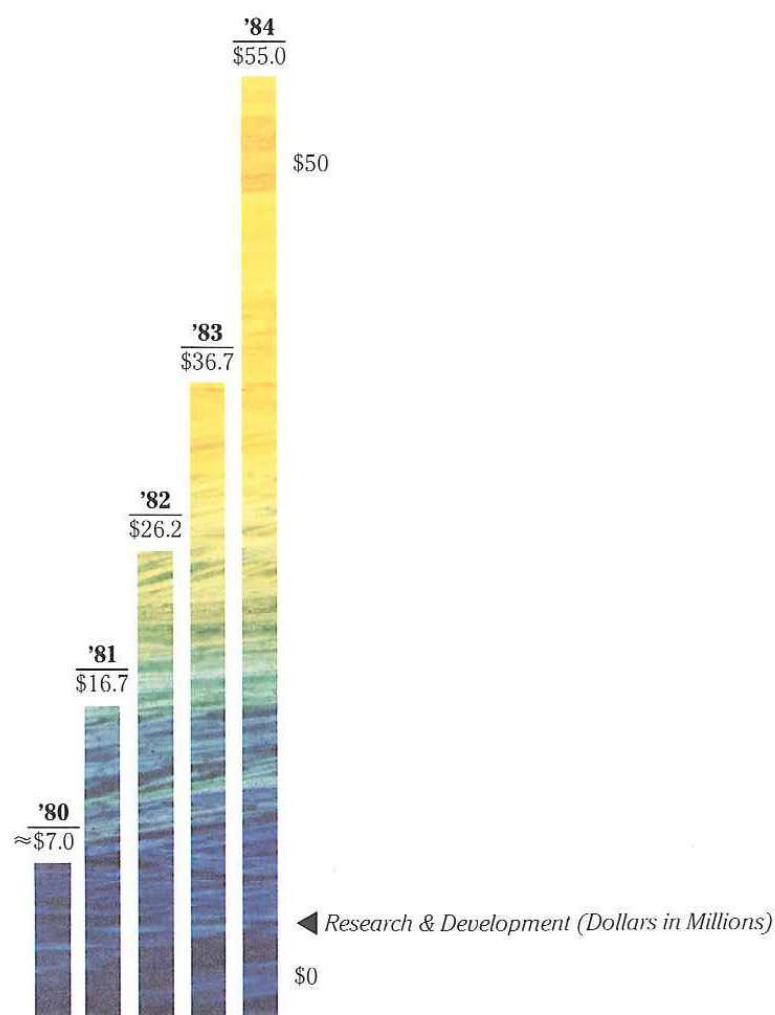
(in thousands except per share amounts)	Year Ended December 31		
	1984	1983	1982
Revenues:			
Contract (including amounts from related parties: 1984—\$36,943; 1983—\$25,804; 1982—\$7,355)	\$65,627	\$42,373	\$28,838
Interest	4,159	4,630	3,765
Total revenues	69,786	47,003	32,603
Costs and expenses:			
Research and development	54,982	36,661	26,235
Marketing, general and administrative	11,794	8,876	5,676
Total costs and expenses	66,776	45,537	31,911
Income before taxes	3,010	1,466	692
Income tax provision	290	338	67
Net income	\$ 2,720	\$ 1,128	\$ 625
Net income per share	\$.19	\$.08	\$.05
Weighted average number of shares used in computing net income per share	14,370	14,158	12,412

See notes to consolidated financial statements.



(in thousands)	Year Ended December 31		
	1984	1983	1982
Funds from Operations:			
Net income	\$ 2,720	\$ 1,128	\$ 625
Depreciation and amortization	4,336	2,847	1,384
Changes in:			
Receivables and prepaids	(9,214)	3,003	(5,467)
Accounts payable and accrued liabilities	3,917	(549)	2,733
Contract advances	25	882	1,663
Funds from operations	1,784	7,311	938
Investment Activities:			
Capital expenditures	16,052	17,131	17,592
Investments in affiliates	2,827	3,391	1,831
Other assets	3,496	583	377
Funds used by investment activities	22,375	21,105	19,800
Financing Activities:			
Stock sales	2,376	15,958	25,538
Issuance of warrants	2,009	—	—
Long-term debt including current portion:			
Additions	11,043	3,741	455
Reductions	(4,728)	(1,197)	(1,015)
Funds provided by financing activities	10,700	18,502	24,978
Increase (Decrease) in Funds	\$ (9,891)	\$ 4,708	\$ 6,116

See notes to consolidated financial statements.



(in thousands)

December 31

Assets	1984	1983
Current assets:		
Cash and short-term cash investments, at cost which approximates market	\$ 32,030	\$ 41,921
Accounts receivable, principally contracts (including amounts from related parties: 1984—\$7,023; 1983—\$3,015)	12,718	4,921
Interest receivable	505	766
Prepaid expenses and other current assets	2,814	1,136
Total current assets	48,067	48,744
Property, plant and equipment, net of accumulated depreciation and amortization: 1984—\$9,725; 1983—\$5,460	72,893	61,106
Other assets	4,560	1,135
Investments in affiliated companies	8,049	5,222
Total assets	\$133,569	\$116,207
Liabilities and Shareholders' Equity		
Current liabilities:		
Accounts payable	\$ 3,991	\$ 2,909
Current portion of long-term debt	4,746	4,654
Accrued compensation	2,818	1,645
Contract advances (including amounts from related parties: 1984—\$2,182; 1983—\$1,937)	3,269	3,244
Other accrued liabilities	3,709	2,047
Total current liabilities	18,533	14,499
Long-term debt	11,549	5,326
Total liabilities	30,082	19,825
Commitments and contingencies		
Shareholders' equity:		
Preferred Stock, \$.02 par value; authorized 2,000,000 shares; none issued	—	—
Common Stock, \$.02 par value; authorized 28,500,000 shares; outstanding: 1984—14,396,175; 1983—14,329,706	288	287
Earnings Convertible Restricted Stock, \$.02 par value; authorized 1,500,000 shares; outstanding: 1984 and 1983—736,815	15	15
Additional paid-in capital	100,058	96,138
Notes receivable from sale of stock	(1,315)	(1,779)
Retained earnings	4,441	1,721
Total shareholders' equity	103,487	96,382
Total liabilities and shareholders' equity	\$133,569	\$116,207

See notes to consolidated financial statements.

(in thousands)	Common Stock and Common Stock Subscribed	Restricted Stock	Additional Paid-in Capital	Notes and Subscription Receivable From Sale of Stock	Retained Earnings	Total Shareholders' Equity
Balance at December 31, 1981	\$ 241	\$ 2	\$ 53,729	\$ (807)	\$ (32)	\$ 53,133
Issuance of stock:						
Common—(1,102,541 shares)	22	—	25,143	—	—	25,165
Series C Restricted— (376,107 shares)	—	8	912	(777)	—	143
Earnings Convertible Restricted— (140,550 shares)	—	3	91	(70)	—	24
Common Stock Subscribed— (642,857 shares)	15,000	—	—	(10,000)	—	5,000
Payments on notes receivable	—	—	—	206	—	206
Net income	—	—	—	—	625	625
Balance at December 31, 1982	15,263	13	79,875	(11,448)	593	84,296
Issuance of stock:						
Common—(683,129 shares)	(14,986)	—	15,674	(1)	—	687
Earnings Convertible Restricted— (596,265 shares)	—	12	589	(505)	—	96
Conversion of Series C Restricted to Common (480,357 shares)	10	(10)	—	—	—	—
Payments on notes and subscription receivable	—	—	—	10,175	—	10,175
Net income	—	—	—	—	1,128	1,128
Balance at December 31, 1983	287	15	96,138	(1,779)	1,721	96,382
Issuance of Common Stock— (66,469 shares)	1	—	1,911	—	—	1,912
Issuance of warrants	—	—	2,009	—	—	2,009
Payments on notes receivable	—	—	—	464	—	464
Net income	—	—	—	—	2,720	2,720
Balance at December 31, 1984	\$ 288	\$ 15	\$100,058	\$ (1,315)	\$ 4,441	\$103,487

See notes to consolidated financial statements.

Summary of Significant Accounting Policies

Business Genentech is engaged in the development, manufacture and marketing of recombinant DNA products, focused on human and animal health care. To date, principal activities have encompassed research and development, product manufacture for clinical use and product testing both on the Company's behalf and pursuant to contracts with customers.

Principles of Consolidation The consolidated financial statements include the accounts of the Company and its wholly-owned subsidiaries. All intercompany balances and transactions have been eliminated.

The Company's investments in Genentech Clinical Partners, Ltd., Genentech Clinical Partners II and Genentech Clinical Partners III and its investments in its joint ventures, Genencor, HP Genenchem and Travenol-Genentech Diagnostics, are carried on the equity method. The net effect of applying the equity method has been immaterial through December 31, 1984.

Property, Plant and Equipment The costs of buildings and equipment are depreciated for financial reporting purposes using the straight-line method over the estimated useful lives of the assets. Accelerated methods are used for income tax purposes. Leasehold improvements are amortized over the length of the applicable lease. Expenditures for maintenance and repairs are expensed as incurred. Interest cost on construction in progress is capitalized.

Patents As a result of its research and development programs, the Company owns and is in the process of applying for a number of patents in the United States and abroad which protect products and processes of significant importance to the Company. The Company intends to defend its patent positions vigorously. Patents and patent applications are reflected at cost and are included in the other assets caption on the consolidated balance sheet. They are amortized on a straight-line basis over the life of each patent.

Contracts The Company receives contract advances under certain of its research and development agreements. Such amounts are recognized as income in accordance with contract terms. In return for contract payments, contract clients may receive certain marketing and manufacturing rights, product for clinical use and testing or research and development services.

Research and Development All costs of research and development activities are expensed in the year incurred. These costs, which are significant, are for programs that are expected to contribute to the profitability of the Company in future years.

Income Taxes For financial statement purposes, investment tax credits and research credits are accounted for on the flow-through method as a reduction of federal income tax expense.

Earnings Per Share Earnings per share is computed based on the weighted average number of common shares outstanding.

Note 1: Related Party Transactions During 1984, the Company continued to have transactions with related parties in the ordinary course of business. Pursuant to contracts, principally to perform research and development on specific projects, the Company recorded as revenue approximately \$36.9 million in 1984, \$25.8 million in 1983 and \$7.4 million in 1982 from the following related parties: Fluor Corporation; The Lubrizol Corporation; Hewlett-Packard Company; HP Genenchem (a joint venture between Hewlett-Packard Company and the Company); Travenol-Genentech Diagnostics (a joint venture between Travenol Laboratories, Inc. and the Company); Genencor (a joint venture between Genentech, Corning Glass Works and, as of January 1985, A.E. Staley Manufacturing Company); and three independently funded limited partnerships for which the Company performs research services under cost reimbursement development agreements, Genentech Clinical Partners, Ltd. ("GCP"), Genentech Clinical Partners II ("GCP II") and Genentech Clinical Partners III ("GCP III"). Through private placements, GCP raised \$55.6 million in partnership interests in 1982; GCP II raised \$34.0 million in partnership interests in 1983; and GCP III raised \$30.8 million in 1984 and subsequently \$2.4 million in partnership interests in January 1985. The officers and directors of the Company, as a group, own an immaterial amount of limited partnership interests in GCP, GCP II and GCP III. Genentech Development Corporation, a wholly-owned subsidiary of the Company, has a one percent interest in each Partnership and serves as general partner of the Partnerships.

Note 2: Operating Revenues Several major customers (3 in 1984, 1983 and 1982) each contributed 10% or more of the Company's total revenues in each period. The portions of revenues attributable to these customers were 13%, 17% (GCP), and 20% (GCP II) in 1984; 12%, 14% (GCP II) and 26% (GCP) in 1983; and 11%, 14% (GCP) and 17% in 1982. Revenues from foreign customers were as follows: Western Europe—approximately \$12.2 million in 1984, \$7.3 million in 1983 and \$3.4 million in 1982; Asia—approximately \$1.7 million in 1984, \$3.1 million in 1983 and \$12.3 million in 1982.

Note 3: Income Taxes

The provision for income taxes consists of the following (in thousands):

Year Ended December 31	1984	1983	1982
State income taxes:			
Current	\$ —	\$ 255	\$ —
Deferred (prepaid)	290	(117)	67
	290	138	67
Foreign income tax—current	—	200	—
	\$ 290	\$ 338	\$ 67

The provisions for federal income taxes of \$1,250,000 in 1984, \$574,000 in 1983, and \$262,000 in 1982 were offset by research credits, investment tax credits and foreign tax credits. Research credits and investment tax credits of approximately \$3.3 million are available to offset future financial statement income tax expense. At December 31, 1984 for federal income tax purposes, the Company has a foreign tax credit carryforward of \$200,000 expiring in 1988, investment tax credit and research credit carryforwards of \$2.7 million and \$2.4 million, respectively, expiring from 1996 through 1999. At December 31, 1984, the Company had a net operating loss carryforward for tax purposes of approximately \$3.0 million and none for financial reporting purposes. The difference between the financial statement and tax basis net operating loss carryforward is due primarily to the accelerated depreciation and amortization methods used for tax purposes.

Deferred (prepaid) state income tax expense results from timing differences in the recognition of revenue and expense for tax and financial reporting purposes. The sources of these differences and the tax effect of each are as follows (in thousands):

	1984	1983	1982
Depreciation and amortization expense	\$ 384	\$ 263	\$ —
Cash basis accounting for tax purposes	—	(329)	146
Expenses capitalized for tax purposes	(28)	(51)	(79)
Other	(66)	—	—
	\$ 290	\$ (117)	\$ 67

Note 4: Property, Plant and Equipment

Property, plant and equipment consists of the following (in thousands):

	1984	1983
Land and buildings	\$43,639	\$36,135
Equipment	8,914	6,016
Leasehold improvements	26,767	21,914
Construction-in-progress	3,298	2,501
Total	82,618	66,566
Less accumulated depreciation and amortization	(9,725)	(5,460)
Property, plant and equipment, net	\$72,893	\$61,106

Capital leases of \$3.4 million in 1984 and \$2.1 million in 1983 are included with equipment. They account for accumulated amortization of \$599,700 and \$126,600 for 1984 and 1983, respectively.

Interest incurred during the construction of major capital projects is capitalized as part of the cost of acquiring certain assets. Interest incurred of \$946,400 in 1984, \$740,300 in 1983, and \$268,100 in 1982 has been capitalized.

Note 5: Long-Term Debt and Credit Arrangements

Long-term debt at December 31, 1984 consists of the following (in thousands):

Description	Total	Current	Long-Term
Mortgage note on building payable at prime rate due in 1986	\$ 5,500	\$ —	\$ 5,500
Revolving Credit Agreement	3,000	3,000	—
Secured assessment notes payable at interest rates ranging from 9% to 11.4%, due 1985 through 2003	2,370	36	2,334
Mortgage note on land payable at interest rate of 11%, due 1985 through 1986	856	15	841
Non-interest bearing notes payable as capital contributions to Genentech Clinical Partners, Ltd., Genentech Clinical Partners II and Genentech Clinical Partners III, due 1985 through 1988	658	241	417
Obligations under capital leases	2,911	454	2,457
Other	1,000	1,000	—
	\$16,295	\$ 4,746	\$11,549

In 1983, the Company entered into a \$25 million 3-year revolving line of credit with the option to convert any borrowings to a 7-year term loan. The interest rate can vary from prime (10.75% at December 31, 1984) to prime plus 3/4%, or can be fixed at a stated percentage over the certificate of deposit rate. The Company pays a commitment fee varying from 1/8 of 1% to 1/2 of 1% on the unused portion. The credit commitment requires the Company to maintain certain financial ratios. A portion of the Company's land and buildings have been pledged as security under this arrangement.

Maturities of long-term debt in 1985 and in the four subsequent years are \$4,745,500, \$7,129,100, \$723,700, \$776,000, and \$472,700, respectively.

Note 6: Capital Stock In August 1980 the Company adopted the Employee Stock Plan under which full-time employees can purchase the Company's Common Stock based on a percentage of their compensation. Of the 600,000 shares of Common Stock reserved for issuance, a total of 261,013 shares have been issued as of January 2, 1985. The plan may be terminated at the Company's option. No new rights may be granted after December 31, 1985. As of January 2, 1985, 577 of the 673 eligible employees participated in the plan.

In August 1982 Earnings Convertible Restricted Stock ("Restricted Stock") was created after shareholder approval. The Restricted Stock is an investment security offered by the Company's Board of Directors ("Board") for sale to qualified parties. No dividends may be declared on the Restricted

Stock, each share has one-tenth the voting and liquidation rights of a share of Common Stock and the shares are generally not transferable. Each share of Restricted Stock is contingently convertible into one share of Common Stock on the last day of the month in which the Company certifies to the Board that it realized, in the four preceding quarters, net income of at least \$20 million or net income per share of at least \$1.33, or in the case of a merger or acquisition of the Company. The Company may issue up to 975,000 shares of Restricted Stock. As of December 31, 1984, 217 individuals have been authorized to receive shares. No shares of Restricted Stock have been sold or issued on or after March 14, 1984. A portion of the Restricted Stock sold is subject to repurchase by the Company under certain circumstances.

In April 1984 the shareholders adopted the Company's Incentive Stock Option Plan and Non-Qualified Stock Option Plan whereby 600,000 shares and 150,000 shares of Common Stock, respectively, were reserved for issuance. Options may be granted under the Incentive Stock Option Plan only to employees (including officers) of the Company. Options may be granted under the Non-Qualified Stock Option Plan to employees (including officers), directors and consultants to the Company. Options granted under the Incentive Stock Option Plan and the Non-Qualified Stock Option Plan expire in five years and ten years, respectively, from the date of grant. The options generally become exercisable in increments over a period of three years from the date of grant, with the first increment vesting after one year. Options may be granted with different vesting terms from time to time. At December 31, 1984, 154 out of 674 employees held options granted under the plans. No consultants or directors had received any options. At December 31, 1984, none of the incentive stock options or the non-qualified stock options were exercisable or had been exercised.

During 1984, under the Incentive Stock Option Plan and the Non-Qualified Stock Option Plan, 196,475 shares with exercise prices ranging from \$29.13 to \$33.75 were granted. At December 31, 1984, 191,375 shares under options were outstanding with the expiration dates ranging from July 17, 1989 to December 11, 1994 and the weighted average per share exercise price was approximately \$31.37.

Note 7: Warrants In consideration of the grant to the Company by each Limited Partner of Genentech Clinical Partners III ("GCP III") admitted on December 31, 1984 of an option to purchase all of such Limited Partners' interests in GCP III, the Company on December 31, 1984, issued warrants with each partnership interest, to purchase up to 459,750 shares of Genentech Common Stock. The warrants are exercisable at \$45.10 per share from December 1, 1986 to November 30, 1988, and thereafter through November 30, 1992 at a price of \$50.10 per share. The warrants are not detachable from the partnership interests until after certain events occur. The

stock purchase warrants expire on November 30, 1992. The Company has the right to accelerate this expiration date under certain circumstances. On December 31, 1984 the warrants were valued at \$4.37 per share. On January 11, 1985, the Company issued warrants to purchase up to 36,000 shares of Genentech Common Stock in consideration of a grant to the Company by each Limited Partner of GCP III admitted on that date of an option to purchase all of such Limited Partners' interests in GCP III. These warrants are identical to those issued on December 31, 1984, except that the exercise price is \$46.81 until November 30, 1988 and \$51.81 thereafter. On January 11, 1985 these warrants were valued at \$6.24 per share.

Note 8: Commitments The Company has entered into equipment leasing arrangements aggregating \$32.1 million, of which approximately \$26.7 million has been utilized and \$2.0 million is committed under purchase orders at December 31, 1984. Certain of these arrangements require that the Company maintain \$6 million of working capital (as defined), place limits on certain types of debt and preclude the payment of dividends without prior approval. The Company is responsible for taxes, insurance and maintenance under its leasing arrangements.

Future lease payments under noncancellable capital and operating leases at December 31, 1984 are as follows (in thousands):

	Operating	Capital
1985	\$ 6,014	\$ 839
1986	5,802	835
1987	5,699	835
1988	5,226	756
1989	3,753	491
Thereafter	4,923	351
Total minimum lease payments	<u>\$31,417</u>	4,107
Less amount representing interest		<u>1,196</u>
Present value of minimum lease payments		\$ 2,911

Rent expense under operating leases was approximately \$6.1 million, \$5.2 million and \$3.2 million for 1984, 1983, and 1982, respectively. Income from subleases was immaterial.

The Company has arranged a \$2 million unsecured line of credit for working capital purposes and for providing guarantees for employees in connection with short-term residential bridge loan financing resulting from their relocation upon joining the Company. At December 31, 1984 the Company was contingently liable for approximately \$1.1 million as guarantor of such loans to sixteen employees.

Note 9: Research and Development Arrangements

The Company has entered into contracts to perform research and development ("R&D") with Genentech Clinical Partners, Ltd. ("GCP"), Genentech Clinical Partners II ("GCP II"), Genentech Clinical Partners III ("GCP III"). The Company also entered into licensing agreements with these contract partners wherein they were granted exclusive territorial rights to practice under the Company's patents and to use the Company's knowhow for certain projects. GCP acquired the United States rights for human growth hormone and gamma interferon, GCP II acquired the United States rights for tissue-type plasminogen activator and GCP III acquired the United States rights for tumor necrosis factor.

Under the research and development partnerships, up to approximately \$48.2 million, \$29.8 million, and \$27.9 million was allocated from GCP, GCP II, and GCP III, respectively to fund R&D on the related projects. Under these R&D arrangements, the Company recognized revenue from the partnerships for the costs of the work performed on the respective project's development on a cost reimbursement basis. The Company has elected to incur and not charge to the partnerships the costs of certain research and development activities in order to optimize the development of the products associated with GCP and GCP II. In the fourth quarter of 1984 the Company has funded \$962,000 of such product development costs. The Company recorded approximately \$26.6 million, \$19.2 million and \$4.6 million as revenue under these research and development partnerships in 1984, 1983, and 1982, respectively.

Under these partnership arrangements, if development cannot be successfully completed, the Company's obligation is terminated and the Company has no further obligations under the agreements or rights or interests in the products within the defined territory. If development is successfully completed and regulatory approval is received, the Company has options to first manufacture and market the products in a joint venture with each contract partner and then to purchase the Partnership interests including all the rights to the respective products. Should the Company exercise the purchase option of either GCP or GCP II, the Limited Partners have the choice of accepting cash royalty payments or Common Stock of Genentech. Should all Limited Partners of GCP and GCP II elect to take stock, 1,650,000 and 677,000 shares, respectively, of Genentech Common Stock would be issued. Under GCP III, if the Company exercises the purchase option, the Limited Partners will receive future cash payments based on a percentage of product revenues plus a fixed initial cash payment, a portion of which, at Genentech's option, may be in an equivalent amount of Genentech Common Stock at a 10% discount from market price. Should the Company elect to issue stock, the number of shares issued would be dependent upon the fair market value of the Company's Common Stock.

In 1983 the Company entered into a research and development contract under which Granada R&D Ventures

("Granada") was to acquire the rights for bovine interferon in the United States and Canada. Under the contract with Granada, the Company had expended \$10.2 million and had been reimbursed for \$10 million of these costs through 1984. In December 1984 both parties agreed to discuss restructuring their contractual arrangements to eliminate any further obligations on the part of Granada to continue financing the development of bovine interferon. The Company believes that the bovine interferon program continues to show promise and plans to continue development of bovine interferon for either its own use or for licensing to other parties.

Quarterly Financial Data (Unaudited)

(in thousands except per share amounts)

	Operating Revenue	Income Before Taxes	Net Income	Net Income Per Share
1984				
Fourth	\$17,155	\$ 678	\$ 612	\$.04
Third	18,059	1,191	1,098	.08
Second	16,137	715	625	.04
First	14,276	426	385	.03
1983				
Fourth	\$12,222	\$ 302	\$ 226	\$.02
Third	11,422	442	340	.02
Second	9,784	467	332	.02
First	8,945	255	230	.02

Price Range of Common Stock

The Common Stock of the Company is traded in the National Market System under NASDAQ symbol GENE. No dividends have been paid on the Common Stock. All amounts stated below reflect the Company's three-for-two stock split effective March 2, 1983.

1984	High	Low
4th Quarter	\$35-1/2	\$28-3/4
3rd Quarter	35-3/4	28-3/4
2nd Quarter	37-3/4	28-3/4
1st Quarter	42-1/4	31-1/4
1983		
	High	Low
4th Quarter	\$39-3/4	\$25-7/8
3rd Quarter	49-3/4	35-3/8
2nd Quarter	45-1/4	38
1st Quarter	46-1/2	26*

*The Company's Common Stock was admitted to the NASDAQ National Market System on February 8, 1983. The low figure represents the low bid price for the quarter.

Overview Genentech is engaged in the development, manufacture and marketing of recombinant DNA products, focused on human and animal health care. To date, principal activities have encompassed research and development, product manufacturing for clinical use and product testing both on the Company's behalf and pursuant to contracts with customers. The Company's strategy has been to cover operating expenses with operating revenues and interest income, thereby operating at a modest level of profitability as the Company concentrates its resources toward product introduction to the market.

Results of Operations Revenues have increased substantially in each period since inception. Total revenues were \$69.8 million in 1984, up 48% from the prior period. Net income in 1984 was \$2.7 million with earnings per share of \$.19. In 1983 total revenues were \$47.0 million, an increase of approximately 44% from 1982. Net income and earnings per share were \$1.1 million and \$.08, respectively, in 1983. Operating revenues, which represent an increasing proportion of the Company's total revenues for the last three years, increased from \$28.8 million in 1982 to \$42.4 million in 1983 and to \$65.6 million in 1984, accounting for 88%, 90% and 94% of total revenues, respectively. Three major customers (including two related parties in 1984 and 1983, and one in 1982) each contributed 10% or more of the Company's total revenues in each period. Growth in operating revenues was primarily from the addition of new contracts, increased revenues from existing contracts and achievement of certain performance benchmarks. These contract benchmarks included the production and delivery of certain quantities of product for clinical use and testing. In 1984 interest income was \$4.2 million compared with \$4.6 million in 1983 and \$3.8 million in 1982. Overall, interest income amounts in 1984 and 1983 were comparable as higher interest rates in 1984 were offset by a lower average level of investments. The average level of investments in 1984 and 1983 was higher than in 1982.

Costs and expenses were \$66.8 million in 1984, up from \$45.5 million in 1983 and \$31.9 million in 1982. This significant year-to-year cost and expense growth has resulted from increases in the number of employees (674, 543 and 431 full-time employees at year-end 1984, 1983 and 1982, respectively), an increase in the volume and scope of research and development activities performed, and expansion of the Company's facilities. The major portion of these activities resulted from increases in new and existing contracts and the remainder from the Company's own programs. In 1984 expense increases included expanded activities in process development, clinical testing and manufacturing as the Company's products move closer to market. General inflationary trends have also added, in part, to the increase in expenses.

The income tax provisions for 1984, 1983 and 1982 included state income taxes and foreign income taxes. Provisions for federal income taxes were offset by tax credits.

Financial Condition The Company continues to maintain a strong financial position with current assets of near \$48 million at both year-end 1984 and 1983. The equity financing activities of the Company included stock sales which provided \$2.4 million in 1984 primarily from employee stock plans and \$16.0 million in 1983 primarily from a private placement. Net borrowings increased by \$6.3 million in 1984, following an increase of \$2.5 million in 1983. Payment of \$4.2 million on the obligation related to land purchased in 1981 was the major reduction of long-term debt in 1984. As of December 31, 1984, the Company had borrowed \$3 million under a \$25 million revolving line of credit. Also in 1984, the Company incurred \$5.5 million in debt in connection with the purchase of a building.

The Company has sponsored three independently funded research and development limited partnerships, Genentech Clinical Partners, Ltd. ("GCP"), Genentech Clinical Partners II ("GCP II"), and Genentech Clinical Partners III ("GCP III"). Through private placements, GCP raised \$55.6 million in partnership interests in 1982; GCP II raised \$34.0 million in partnership interests in 1983; and GCP III raised \$30.8 million in 1984 and subsequently \$2.4 million in partnership interests in January 1985. The Company performs research and development, including clinical testing in the United States, under contracts with the three partnerships. In order to optimize the development of the products associated with GCP and GCP II, the Company, in the fourth quarter of 1984, elected to incur and absorb certain development costs totalling \$962,000. The Company plans to increase such expenditures in the future to continue to optimize the products' development. Although certain of the Company's development programs are taking longer than originally planned, the Company believes the clinical testing to date has achieved scientific results consistent with earlier expectations.

Capital expenditures, primarily for facilities development and expansion, totaled \$16.1 million in 1984 compared with \$17.1 million in 1983. The Company's 74,000 square foot bulk manufacturing plant became fully operational early in 1983. In addition to its liquid assets and revenue from contracts, the Company expects to fund further capital expansion as well as to fund working capital requirements for continued research and development and clinical testing through additional equity financing, leases or debt financing. In February 1985 the Company raised approximately \$40 million through a private placement of 750,000 shares of Common Stock with one of the Company's European contract partners, Boehringer Ingelheim International GmbH.

Directors

Herbert W. Boyer, Ph.D.
Professor of Biochemistry,
University of California,
San Francisco

Harry Faulkner
President,
Alfa-Laval AB,
a manufacturer of process equipment

Amory Houghton, Jr.
Chairman of the Executive Committee,
Corning Glass Works,
a manufacturer of specialized glass
and glass-ceramic products

Donald L. Murfin
President, Lubrizol Enterprises, Inc.,
a business development subsidiary of
The Lubrizol Corporation,
a manufacturer of specialty chemicals

David Packard
Chairman of the Board,
Hewlett-Packard Company,
an electronic equipment manufacturer

Thomas J. Perkins (Chairman)
Partner,
Kleiner, Perkins, Caufield & Byers,
a venture capital firm

John T. Potts, Jr., M.D.
Chief of the General Medical Services,
Massachusetts General Hospital

*G. Kirk Raab**
President and Chief Operating Officer,
Genentech, Inc.

Robert A. Swanson
Chief Executive Officer,
Genentech, Inc.

David S. Tappan, Jr.
Chairman of the Board and
Chief Executive Officer,
Fluor Corporation,
an engineering and construction company

Annual Meeting

The annual meeting of shareholders
will be held at 10:00 a.m. on Tuesday,
April 23, 1985, at The Grosvenor Airport
Inn, 380 South Airport Boulevard,
South San Francisco, California

SEC Form 10-K

A copy of the Company's annual report
to the Securities and Exchange
Commission on Form 10-K is available
without charge upon written request
to: Treasurer, Genentech, Inc., 460
Point San Bruno Boulevard, South San
Francisco, California 94080

Officers

Robert A. Swanson
Chief Executive Officer

*G. Kirk Raab**
President and Chief Operating
Officer

Herbert W. Boyer, Ph.D.
Vice President

Brian C. Cunningham
Vice President-General Counsel

James M. Gower
Vice President-Marketing

*William W. Higgins**
Vice President-Human Resources

*Mark B. Hirsch**
Vice President-Business
Development

Thomas D. Kiley
Vice President-Corporate
Development

David W. Martin, Jr., M.D.
Vice President-Research

Michael J. Ross, Ph.D.
Vice President-Development

Gary T. Steele
Vice President-Product Development

William D. Young
Vice President-Manufacturing &
Process Sciences

Shirley L. Clayton
Treasurer

Anne D. Gunderson
Secretary

Louis J. Lavigne, Jr.
Controller

Transfer Agent and Registrar

The First National Bank of Boston
Post Office Box 644
Boston, Massachusetts 02102

Auditors

Arthur Young & Company
San Jose, California

Number of Holders of Common Stock

As of February 28, 1985, there were
approximately 8,100 shareholders of
record of the Company's common stock.

Corporate Headquarters

460 Point San Bruno Boulevard
South San Francisco, California 94080
(415) 952-1000

* elected February 13, 1985

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry, no matter how small, should be recorded to ensure the integrity of the financial statements. This includes not only sales and purchases but also expenses and income. The document further explains that proper record-keeping is essential for identifying trends, managing cash flow, and complying with tax regulations.

In addition, the document highlights the need for regular reconciliation of accounts. By comparing the company's internal records with bank statements and other external sources, discrepancies can be identified and corrected promptly. This process helps to prevent errors from accumulating and ensures that the financial data is reliable and up-to-date.

The document also addresses the importance of using appropriate accounting methods and principles. It notes that consistency in the application of these methods is crucial for providing meaningful and comparable financial information. Furthermore, it stresses the importance of transparency and honesty in all financial reporting, as this is the foundation of trust and credibility.

Finally, the document concludes by stating that effective financial management is a key factor in the long-term success of any business. By following the guidelines outlined in this document, businesses can ensure that their financial records are accurate, complete, and reliable, thereby enabling them to make informed decisions and achieve their financial goals.