


CYTOGEN CORPORATION

1991 ANNUAL REPORT



**Entering
the
Next
Phase**

Selected Financial Information

(All amounts in thousands, except per share data)

	1991	1990	1989	1988	1987
Statement of Operations Data:					
Revenues	\$ 10,851	\$ 4,701	\$ 7,468	\$ 5,906	\$ 11,423
Research and development	21,293	16,942	15,179	13,955	11,045
Marketing, general and administrative	4,816	4,930	5,386	6,158	4,571
Operating expenses	26,195	22,040	21,424	23,727	15,616
Net loss	\$ (15,344)	\$ (17,339)	\$ (13,956)	\$ (17,821)	\$ (4,193)
Dividends on preferred stock	(1,725)	(1,725)	(163)	—	—
Net loss to common stockholders	\$ (17,069)	\$ (19,064)	\$ (14,119)	\$ (17,821)	\$ (4,193)
Net loss per common share	\$ (0.98)	\$ (1.36)	\$ (1.18)	\$ (1.49)	\$ (0.35)
Weighted average common shares outstanding	17,345	13,971	11,994	11,924	11,910
Balance Sheet Data:					
Cash and short term investments	\$ 54,506	\$ 39,835	\$ 28,950	\$ 26,818	\$ 38,426
Total assets	64,471	47,082	35,930	33,263	46,899
Long term debt and redeemable preferred stock	17,250	17,838	16,294	2,000	—
Redeemable common stock	2,000	2,000	2,000	—	—
Common stock and accumulated deficit	38,760	23,193	12,642	27,106	44,700

CYTOGEN's financial results for 1991 reflect total revenues of \$10.9 million, which were 132% above the \$4.7 million realized in 1990. The revenues included \$5.0 million from two separate one-time milestone payments, \$3.8 million in interest income, \$2.0 million from the sale of research services, and \$0.1 million of product sales to EuroCetus, N.V.. The milestone payments were received from EuroCetus, N.V. for the approval of CYTOGEN's colorectal imaging product in Germany and Luxembourg and from Knoll Pharmaceuticals upon entering into an agreement with CYTOGEN to co-promote its early cancer imaging products in the United States.

CYTOGEN's operating expenses of \$26.2 million in 1991 were 19% above the \$22.0 million recorded during the comparable period in 1990. The operating expenses for 1991 continued to reflect CYTOGEN's ongoing product development program and preparation for launch in the United States of the OncoScint colorectal and ovarian imaging products. These activities required the allocation of resources for: obtaining the favorable recommendation of the Committee for Proprietary Medicinal Products; individual European country approvals; activities related to the U.S. regulatory process; and preparation for the initiation of Phase I human clinical trials of its cancer imaging products for breast and non-small cell lung cancer and ThromboScan, CYTOGEN's cardiovascular imaging agent using a molecular recognition unit.

The net loss of \$15.3 million for 1991 was 12% below the \$17.3 million loss reported in 1990. The loss per common share for 1991 was \$0.98 on 17.3 million average shares outstanding, as compared to \$1.36 per share on 14.0 million average shares outstanding in 1990, and included dividends on preferred stock which were equivalent to \$0.10 and \$0.12 per common share in 1991 and 1990, respectively.

CYTOGEN's cash and short term investments increased to \$54.5 million as of December 28, 1991, compared to \$39.8 million as of December 29, 1990.

"TO GIVE LIGHT TO THEM THAT SIT IN DARKNESS"

—Luke 1:79

People with cancer often feel the darkness of the unknown.

The unknown location and extent of their disease.

The unknown realities that will consume their energy, their resources and their hope.

CYTOGEN Corporation has dedicated ten years to developing technology

that sheds new light on the diagnosis and treatment of major cancers.

Light generated through targeted technology that seeks and binds to specific cancer cells.

Technology which can carry substances that may either illuminate or eliminate the disease.

Our first imaging products provide physicians with actionable information:

knowledge they can use to make better, more insightful decisions for a cancer patient's care.

As a small Company of people with big dreams and even greater commitments,

we want to do more than just shed light on cancerous diseases.

We hope to significantly contribute to their cure.

Today, CYTOGEN offers a small torch to illuminate that pathway.

we hope to set the sky ablaze with the light of new treatments and renewed hope.



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10 Year Overview

1981

Robert F. Johnston, Thomas J. McKearn, M.D., Ph.D. and John D. Rodwell, Ph.D., commence research to unlock potential of the "monoclonal antibody"

1982

Establish CYTOGEN facilities in Princeton, N.J.

File first U.S. patent application for CYTOGEN "linker" technology

Staff totals 12



1983

Demonstrate animal tumor imaging with antibody-linker-isotope technology

File first European patent application

Staff totals 35

1984

Demonstrate imaging of human tumors transplanted in animals

File additional U.S. patent applications

Ronald J. Brenner, Ph.D., named President and CEO

Staff totals 68

1985

Demonstrate technology's ability to image animal metastatic tumors

Produce tumor regression in animals through antibody delivery of chemotherapeutics

Develop Company strategy focused on diagnosis and treatment of cancer

Staff totals 74

1986

M.D. Cleary joins as V.P. Finance & Administration and CFO

Initial Public Offering raises \$39 million dollars

First human clinical trials utilizing CYTOGEN delivery technology

Kodak equity investment for \$15 million

Staff totals 75

1987

First U.S. patent issued

Doubled facilities to 59,000 square feet

Phase I OncoScint studies initiated

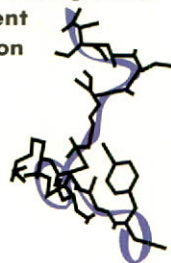
W.J. Ryan joins as V.P. General Counsel

Staff totals 129

1988

OncoScint results indicate effectiveness at low dosage

Molecular Recognition Unit patent application filed



Phase I OncoRad cancer therapy studies initiated

Staff totals 143

1989

George W. Ebright named President

PLA filed with FDA for OncoScint CR103 marketing approval

Signed European marketing agreement with EuroCetus

Technology licensing with Eli Lilly, Bracco Industria Chimica, S.p.A.

Raised \$17.25 million in preferred stock offering

Orphan Drug status granted by FDA to OV103

Staff totals 150

1990

PLA filed with FDA for OncoScint OV103 marketing approval

CPMP filing for OncoScint CR103 European marketing approval

Phase I human clinical studies for OncoScint PR356

Commercial scale manufacturing capability established

Raised \$32 million from secondary stock offering


Staff totals 160

THE NASDAQ STOCK MARKET
NASDAQ

**Dear
Stockholders:**

W

hat a great year this has been for CYTOGEN! A year of achievements, of celebrations, and of major milestones in our corporate life. It was a year of culmination and continuation. We entered the next phase of our development with the European marketing introduction of our first product while at the same time we made great strides in our product development program. We also strengthened our management team, raised substantial new funds, and improved our financial performance.

A color photograph of George W. Ebright, a man with dark hair, wearing a dark suit, white shirt, and a patterned tie. He is standing in a room with a fireplace mantel behind him and a small table with a vase of flowers to his right. He has his arms crossed and is looking directly at the camera.

George W. Ebright
Chairman and Chief Executive Officer

Milestone Approvals

The most momentous milestone by far was achieved when we officially moved into the commercialization phase for our first two products. In June, the Committee for Proprietary Medicinal Products (CPMP), the central advisory body for the European Community, recommended approval of our OncoScint CR103 imaging agent for colorectal cancer. Through February 1992, seven European countries had approved the product for marketing.

Another high point was reached in January 1992, when the Food and Drug Administration's (FDA) Advisory Committee unanimously recommended approval for our first OncoScint products in the United States. That recommendation is a critical step toward final marketing approval of OncoScint, which we eagerly anticipate in 1992. Every employee played an essential role in this achievement, and we could not have succeeded without each one of them.

Strong Executive Management

This year we worked hard to mold a solid executive management team which displays diversity, strength of character, an action orientation, and, most of all, vision. One of the best features of this team is the different set of skills each member brings to our efforts — a foundation that makes our Company strong and ready to meet any challenge. In addition, the roles and responsibilities of our executive managers have been expanded to enable a swift move from a laboratory orientation to a market mindset.



**CYTOGEN Management
Committee**
(counter clockwise
from center front)
G.W. Ebright,
T.J. McKearn,
M.D. Cleary,
J.D. Rodwell,
J.H. Geddes,
W.J. Ryan

Leading the change was the promotion of Thomas J. McKearn to President in September 1991. As one of CYTOGEN's pioneers, he provides a leadership role for this organization, enjoying the respect of all employees. Tom's responsibilities involve management of the Company's day-to-day operations.

John D. Rodwell, Vice President of Research & Development, has been with the Company from its inception, and will assume the additional responsibilities of clinical studies and regulatory affairs. John displays the best qualities of CYTOGEN — innovation, inspiration, dedication — and now our entire technical team benefits from his guidance.

In recognition of our changing marketing and business development needs, we are fortunate to have attracted James H. Geddes to the Company as Group Vice President with responsibilities for Marketing, Sales and Business Development. Jim's experience from both Centocor and SmithKline Beecham is a valuable addition to our planning and implementation as we move forward.

Martin D. Cleary, Group Vice President, Chief Financial Officer, and William J. Ryan, Vice President, General Counsel, round out our team. These two gentlemen have been and will continue to be involved in all aspects of our business.

CYTOGEN's management team is a splendid mix of experience from academia, traditional pharmaceutical management, and entrepreneurial ventures. Each team member's individual perspective makes for challenging discussions and solid decisions.

A Bright Future

Management felt it was important at this juncture to focus clearly on our future direction. As a result, in 1991 we articulated CYTOGEN's vision in a five year strategic plan that we believe will carry us to the top ranks of the biopharmaceutical field.

Developing this plan was a participatory process, involving all levels of staff. We identified the milestones and specific actions we must take to reach our ambitious goals. Everyone in the corporation helped formulate the steps we will take and, in the process, learned what his or her role is in reaching our objectives.

In the fast-moving world of emerging biopharmaceutical companies, we believe it is reassuring to investors that CYTOGEN is always looking ahead. As we move into the next phase with our more mature products, the "cycle of life" continues with other products and next generation technologies being born. No other biopharmaceutical company has the extensive cancer product pipeline of CYTOGEN. Of the eleven products in development, eight are already in the clinic. The rapid progress we are making on each of these fronts is truly remarkable.

Financial Accomplishments

In the best of all worlds, this amount of progress inevitably leads to improved financial results. The financial highlights on the previous page dramatically demonstrate CYTOGEN's goal to move toward the point of break-even and eventual profitability. Considerable revenue was generated by the milestone payments from our domestic and international marketing alliances. These alliances also permit containment of spending which CYTOGEN would have

faced if we had attempted to market our first products alone. From both a short and long term view, these alliances are extremely positive for CYTOGEN's cash flow and rapid market penetration capabilities.

A major source of funds this year was a public offering of 2.3 million shares of common stock in May 1991. Over \$33 million was raised from this fully subscribed offering to provide additional capital for our ongoing commercialization and research efforts.

In February 1992, a product development spin-off, CYTORAD, completed its initial public offering of 3.5 million units, each consisting of one share of CYTORAD callable common stock and one warrant to purchase one share of CYTOGEN common stock.

The unit transaction is a relatively novel means of funding product development through a publicly traded corporation. The funds raised through CYTORAD's initial public offering will finance a \$33 million product development contract between CYTORAD and CYTOGEN, to develop our OncoScint cancer imaging and our OncoRad cancer therapy products for prostate and bladder indications.

In addition to the revenue which CYTOGEN will receive, this structure will permit us to retain access to the prostate and bladder product rights, thus meeting our longer term strategic objectives.

The result of our alliances and public offerings is a strong cash position. With the completion of the CYTORAD initial public offering, CYTOGEN will have access to over \$80 million as we enter 1992, providing the resources to meet our marketing, product and corporate development needs.


Staff and Investor Support

As witnessed in our successful FDA presentation, it is the quality of CYTOGEN employees that has allowed all of our milestone events to occur. They are a unique group of individuals — each bringing a special talent and quality to our "mix." As our organization evolves, we are deeply committed to retaining our culture of camaraderie, innovation, and dedication that has been at the heart of CYTOGEN since its inception over ten years ago.

Finally, we wish to extend thanks to our colleagues in the scientific community and to our partners and investors who have all done so much to help realize CYTOGEN's promise and dreams. With faith in our visions and patience in our growth, these individuals have provided the confidence that one day we would emerge from the shadows of development into the bright light of commercial success.

It has been quite an exciting and demanding journey and, although we have many more miles to go, now is a moment to pause and enjoy our triumphs. Thank you all for your confidence, your enthusiasm and your support for our quest. We at CYTOGEN look forward to continuing on our pathway, guided by the illumination of success.

Sincerely,



George W. Ebright
Chairman and Chief Executive Officer
February 28, 1992

Dear Stockholders:

The year 1991 saw the transition of our Company from the research promises of the 1980s to the marketplace realities of the 1990s. For CYTOGEN employees it is a most gratifying conclusion to our initial phase of development.

CYTOGEN began as a visionary, entrepreneurial company, built on solid technology and science. Teamwork, flexibility and creativity are essential elements in our success. This year with two important regulatory recommendations for approval, we were propelled into high gear. In short order, we had to affirm the adequacy of our manufacturing facilities, plan for our longer range research and clinical needs, and implement a coherent, effective marketing plan. Every one of those objectives was accomplished.

OncoScint Marketing: Europe and the U.S.

Given a potential total global opportunity of over \$1.5 billion for the cancer imaging products, we recognized that rapid initial entry into our target markets would be vital to our success. To effectively penetrate that marketplace, we decided the best approach was to develop limited marketing partnerships. The marketing approaches in the U.S. and Europe have very different courses.

In Europe, we licensed exclusive marketing rights for our cancer imaging products to EuroCetus, a division of Chiron Corporation. Since the fall of 1991, our first product received final marketing approval from seven Western European countries — Germany, Luxembourg, the Netherlands, the United Kingdom, Denmark, Spain and Italy. These approvals set EuroCetus in full motion to build market share for OncoScint colorectal and brand awareness for future CYTOGEN cancer imaging products.

In the U.S., we desired a company who would work alongside us in a co-promotion effort. Knoll Pharmaceuticals, a mid-sized pharmaceutical company and a subsidiary of Knoll A.G. and BASF A.G., agreed to co-promote our first two OncoScint cancer imaging products and to fund a joint product development and marketing program for our second colorectal cancer imaging agent.

Throughout 1992, we will be establishing our own specialty sales force that, together with over 300 Knoll sales representatives, will reach surgeons, oncologists and nuclear medicine physicians throughout the United States. This agreement will provide us with a fully trained CYTOGEN sales force when our other cancer imaging products reach launch stage during the 1990s.

We believe these marketing alliances will provide benefit for all parties involved. We continue to explore the opportunities to license marketing rights for OncoScint products in Eastern Europe and Japan.



Thomas J. McKearn, M.D., Ph.D.
President

Manufacturing OncoScint

In order to begin manufacturing and distributing our products by the end of 1991, we geared up our commercial manufacturing facilities. Although current production capacity will cover anticipated product requirements for the next three years, we are looking toward future needs. Accordingly, we have leased 17,000 square feet of additional space in our corporate complex in Princeton. This will accommodate on-site manufacturing of product and expanded R&D activities. The raw material of monoclonal antibodies, which we currently purchase, has been stockpiled to ensure supply. In addition, we are establishing our own monoclonal antibody production facilities for future products. All of these activities are meant to position CYTOGEN for its next phase of corporate growth.

Research and Development: Cancer Therapy

As we prepare a major marketing launch for OncoScint colorectal and ovarian, our other clinical and R&D projects have continued to move along. Four of our five other imaging products are already in human clinical trials. A new addition, bladder cancer imaging, was recently added to our diagnostic product portfolio.

But imaging cancer is only the beginning. Treating cancer is the next step and curing cancer is our ultimate goal. We plan to transfer the success of cancer imaging to our cancer therapy products. We have already seen some very encouraging results in our human trials of our OncoRad ovarian cancer therapy product. In Phase I studies, designed primarily to determine product safety, the clinical investigators reported a therapeutic response in 57% of the study population. Moreover, three of nine terminally ill ovarian cancer patients infused with a well-tolerated dose of OncoRad have experienced durable remissions of their disease. These results are obviously most encouraging.

CYTOGEN's entry into the cancer therapy market is planned to occur in the mid-1990s, with the introduction of our OncoRad ovarian cancer therapy product. Prostate and bladder cancer treatments are in early stages of development. These products address important human needs and represent a total annual global market opportunity of over \$2 billion.

In keeping with our long standing strategy of securing and improving our proprietary linking technology, CYTOGEN entered into another partnership this year with Johnson Matthey, Inc. (JMI), a division of the British-based advanced materials technology company. JMI has developed a novel technology for linking radioactive technetium-99m to monoclonal antibodies and their fragments. Through the agreement, CYTOGEN holds the exclusive worldwide licensing rights to commercialize products in the field of cancer which employ the proprietary JMI linker for bonding technetium to antibody fragments or other delivery vehicles.

MRU and ThromboScan — The Next Generation

Monoclonal antibodies are just the beginning of *in vivo* targeted delivery systems. Many companies have been working to create smaller versions of a full size monoclonal antibody. Although some have progressed to antibody fragments, CYTOGEN found a way to reduce an antibody from 1,200 amino acids to only 17 while still retaining the desired targeting and delivery capabilities. CYTOGEN started developing this next generation of targeting technology in the mid-1980s, filing its first patent for molecular recognition units, or MRUs, in 1988.

In 1991, we filed an Investigational New Drug (IND) application and early in 1992, moved into Phase I human testing of the MRU in our ThromboScan cardiovascular imaging program. We are most gratified to report that as of this writing, in the first clinical trial, ThromboScan rapidly provided clear images of a patient's blood clot in the leg. Future studies will determine whether ThromboScan can image pulmonary emboli in the lungs as well. Because our focus is on cancer, we will seek a developmental and marketing partner for ThromboScan. However, we do not intend to limit our investigation of MRU applications to the cardiovascular field. They are also potential targeting vehicles for our cancer imaging and therapeutic products.

A Challenging Future

Ten years of research, hundreds of clinical trials, innumerable hours of work, many paths of exploration — and now in the space of one year, we have documented tremendous progress toward our long range objectives. We have registered milestone achievements in our technology. We have vigorously pursued our product commercialization program. And, we have begun commercial production and marketing of our first products. For our Company, for our investors, and for ourselves, the prospects have never been more exciting. The light which now illuminates the CYTOGEN landscape beckons us to deepen our dedication, raise our aspirations, and quicken our pace. To those who have believed in CYTOGEN, we appreciate your faith and are delighted you chose to share the experience with us.

Sincerely,



Thomas J. McKearn, M.D., Ph.D.
President

U.S. Product Development Program

	R&D	Pre-Clinical	IND	Clinicals			PLA	Market
				I	II	III		
Cancer Imaging								
OncoScint Colorectal	●	●	●	●	●	●	●	
OncoScint Ovarian	●	●	●	●	●	●	●	
OncoScint Prostate*	●	●	●	●	●			
OncoScint Colorectal CEA	●	●	●	●				
OncoTc NSC Lung	●	●	●	●				
OncoTc Breast	●	●	●	●				
OncoScint Bladder*	●	●						
Cancer Therapy								
OncoRad Ovarian	●	●	●	●				
OncoRad Prostate*	●	●	●					
OncoRad Bladder*	●							
Cardiovascular Imaging								
ThromboScan DVT/PE	●	●	●	●				

*Licensed to CYTORAD and included in CYTOGEN's product development program, consistent with CYTOGEN's development obligations and marketing rights.

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NOW

Focus resources on product development & marketing

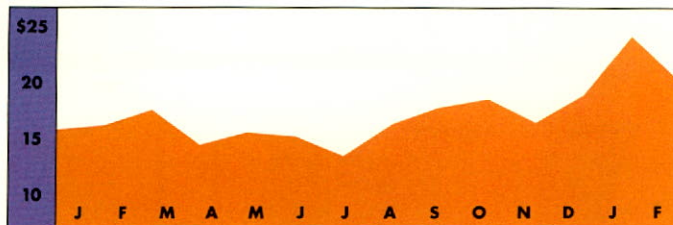
NEXT

Commercialize cancer therapy

FUTURE

Fortune 500 Ranking





YTOGEN's strategic challenge has been to manage the transition from product development to marketing while maintaining its spirit and innovation.

A Clear Focus

Over the years, we have concentrated our skills and resources on specific product lines and markets. CYTOGEN's overall strategy remains focused on the cancer field with an extensive product pipeline for cancer diagnostics and therapeutics. Our five-year strategic plan is designed to position our Company in the top ranks of the biopharmaceutical industry. Two of the plan's major objectives are:

- 1. To lead the *in vivo* cancer imaging market.** As the first company in the world to gain regulatory approval for monoclonal antibody-based cancer imaging, we certainly have a head start. Our product technology provides low dose and safe imaging and our competition has currently fallen to minimal levels.
- 2. From the cancer imaging platform, establish a cancer therapy franchise.** The same technology which delivers agents to image cancer cells can also deliver cell-killing therapy to the disease sites. Already, clinical trials of our OncoRad ovarian therapy product are reaping outstanding positive results.

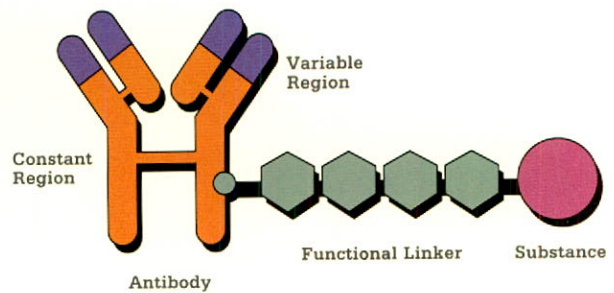
Maximum Return, Minimal Risk

Our financial strategy is to maximize shareholder return while minimizing risk. By selectively licensing certain product applications while retaining rights to our proprietary technology, we secure the long term value of our research and intellectual capital. This strategy is demonstrated in our marketing alliances, our R&D partners, and CYTORAD, a product development spin-off company. In doing so, we produce cash flow from partner milestone payments while allowing our continued development of the technology and the commercialization of new products. Financially, these actions move us closer to break-even and profitability.

Structure for the Future

Finally, the continued development of follow-on and next generation products and technologies is critical to our strategy. We have taken care to ensure that the product development funding and management structures are in place to achieve these objectives. Our low-risk strategy has clear-cut timetables and measurable objectives, determined via consensus management and employee involvement. To date, events have shown our direction to be a sound one. We have proven that important cancer care products can be discovered and brought to the marketplace. We have shown that we can continue our research while building our commercialization efforts. And we have demonstrated that the investment community can achieve a solid return from belief in CYTOGEN.

Product Development



As CYTOGEN enters the commercialization phase, the product development process continues at a rapid pace. In contrast to many companies whose future hangs on a single product, CYTOGEN's research and development pipeline is full.

Imaging Products Approach Commercialization

As of February 1992, CYTOGEN has seven imaging agents for identifying the extent and location of various cancers. Each product is comprised of a whole antibody, or fragment, connected to an imaging substance (radioisotope). The first two, OncoScint colorectal and ovarian, await final FDA approval. Of the remaining five, four are in human clinical trials.

- **OncoScint Prostate** is in Phase II trials and next for commercialization, with hopes to submit an FDA Product License Application in early 1993.
- **OncoScint Colorectal CEA** is a follow-on product for our first colorectal imaging product. In Phase I, we anticipate moving to a Phase II trial later in 1992.
- **OncoTc Breast** and **OncoTc Non-Small Cell Lung** both entered Phase I clinical trials in January 1992.
- **OncoScint Bladder**, our newest product, is in preclinical testing.

Cancer Therapy Developments

CYTOGEN has three OncoRad cancer therapy products in the pipeline. These products use the same proprietary technology configuration of the imaging agents, except the substance is changed from an imaging radioisotope to a cell-killing radioisotope.

- **OncoRad Ovarian** has shown favorable anti-tumor results in Phase I studies and we are escalating the radioisotope to determine maximum tolerated dose.
- **OncoRad Prostate** has completed preclinical testing. An Investigational New Drug (IND) application has been filed with the FDA to enter Phase I trials.
- **OncoRad Bladder** is in research and development.

Next Generation

Since 1988, we have been working with one of the smallest *in vivo* delivery vehicles. Called Molecular Recognition Units (MRU), they are small peptides which can seek out specific diseases and deliver imaging or therapeutic substances. Beyond its small size and rapid clearance benefits, an MRU can also provide the commercial advantage of relatively inexpensive, chemical synthesis.

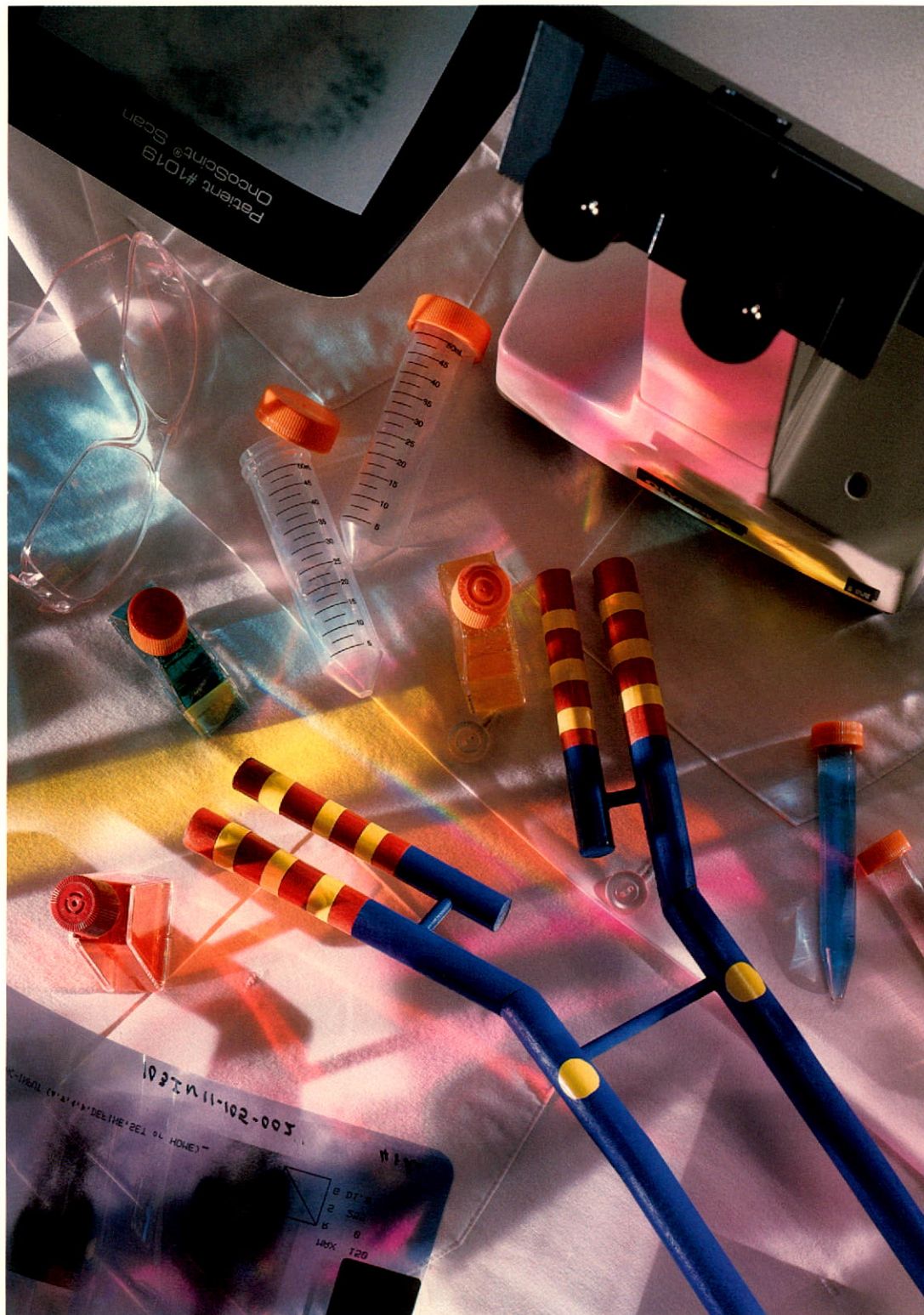
- **ThromboScan**, the first MRU-based product, recently entered Phase I trials, and is providing rapid and clear blood clot images.

New Opportunities

The CYTOGEN product development program has strong funding commitments, clear management support, and the organizational talent to pursue numerous opportunities. We look forward to continuing our excellent track record in bringing new discoveries to fruition and eventual commercial application.

Product Development Process

R&D	Pre-Clinical	IND	Human Clinical Trials			PLA
Research & Development Laboratory testing of technology, configuration of product	Preclinical Testing Animal testing of product	Investigational New Drug FDA application to test product in humans	Phase I Determine product safety over a wide range of doses	Phase II Test product's safe dose level for effectiveness	Phase III Large scale test of product's safe dose level for effectiveness	Product License Application FDA application for approval to market product



NOW

European sales through
EuroCetus

NEXT

U.S. sales through
co-promotion with
Knoll Pharmaceuticals

FUTURE

CYTOGEN marketing
products in U.S. without
alliances



Cancer Imaging Market Opportunity

Monoclonal Antibody-Based Products

U.S. 1995 Estimates



The introduction of OncoScint colorectal in Europe is just the beginning of CYTOGEN's marketing efforts. Our strategy is designed to serve us well through the launch of a family of cancer imaging and therapy products — ensuring success through education, maximizing brand recognition, introducing our products to specific target audiences and paving the way for future product launches.

Market Introductions

As we prepared for OncoScint European launch late in 1991, CYTOGEN worked closely with EuroCetus, our marketing partner for our cancer imaging franchise in Western Europe. Results from clinical trials were translated into effective marketing materials. Symposia were sponsored for nuclear medicine physicians, surgeons and oncologists. EuroCetus's experience in the oncology field and their strong corps of sales representatives will be important in providing an exceptional entree into our first market for OncoScint. The market share built for OncoScint colorectal will promote strong brand awareness for future CYTOGEN imaging products.

Toward year-end 1991, we finalized our joint promotion and sales agreement for the U.S. marketing of OncoScint colorectal and ovarian with Knoll Pharmaceuticals. Their hospital and office based sales force will work in conjunction with CYTOGEN sales personnel. In preparation for FDA approval, important market research continues for product positioning and effective communication materials.

Medical Education

The medical education program has been a paramount priority. OncoScint is not only a new product, but a new concept. Three constituencies of physicians must be focused upon to build product awareness and acceptance. The nuclear medicine physicians must be educated in the proper product use and image interpretation. Referring surgeons and oncologists must be knowledgeable about the patient populations where OncoScint is most useful. One aspect of a comprehensive education program is the development of national and regional centers for initial training and scan interpretation assistance. We have also developed a broad range of materials to assist the referring physician's understanding of the product use and value in cancer diagnosis. Furthermore, we will be using state-of-the art computer technology and innovative collateral programs to equip the physicians with the information they need, when they need it, and in a format which is most useful to them.

Our initial approach to the marketplace will target key institutions where cancer is treated, physicians who focus on cancer patients and specific patient populations. As doctors see their patients benefit from OncoScint, we believe they will become ambassadors for the product, cultivating use among their peers. Building on the strength of our first product introductions, CYTOGEN's marketing efforts are expected to produce positive results and gain important market share for our future product offerings.

Management's Discussion and Analysis of Financial Condition and Results of Operations

CYTOGEN operates on a 52-53 week fiscal year ending on the Saturday nearest to December 31. References below to 1991, 1990 and 1989 relate to fiscal years ended December 28, 1991, December 29, 1990 and December 30, 1989, respectively.

RESULTS OF OPERATIONS

To date, CYTOGEN's revenues have resulted primarily from payments received from the sale of research services pursuant to its limited field of use license agreements, fees generated by the licensing of its technology and marketing rights to its products, and interest earned on its cash and short term investments. These revenues have fluctuated in the past and are expected to continue to fluctuate in the future, although total contract revenue will include Development Agreement payments from CytoRad Incorporated ("CytoRad").

CYTOGEN's financial results for 1991 reflect total revenues of \$10.9 million, which were 132% above the \$4.7 million realized in 1990. The revenues included \$5.0 million from two separate one-time milestone payments, \$3.8 million in interest income, \$2.0 million from the sale of research services, and \$0.1 million of product sales to EuroCetus, N.V. ("EuroCetus"). The milestone payments were received from EuroCetus for the approval of CYTOGEN's colorectal imaging product in Germany and Luxembourg and from Knoll Pharmaceuticals ("Knoll") upon entering into an agreement with CYTOGEN to co-promote its early cancer imaging products in the United States. Interest income increased \$1.1 million from the \$2.7 million realized in 1990 as a result of increases in CYTOGEN's cash and short term investments, attributable to the June 1991 sale of an aggregate of 2,300,000 shares of common stock realizing net proceeds of \$31.5 million. The sale of research services to Sterling Drug Inc. ("Sterling"), Bracco S.p.A. ("Bracco"), and EuroCetus was approximately \$2.0 million in 1991. The \$0.1 million of product sales to EuroCetus in the fourth quarter of 1991 reflect the supply of product for limited market launch in Europe, currently scheduled during the first quarter of 1992.

CYTOGEN's financial results for 1990 reflect total revenues of \$4.7 million, which included \$2.0 million from the sale of research services to Sterling, Farmitalia Carlo Erba S.r.l. ("FICE"), Bracco and EuroCetus, as well as interest of \$2.7 million earned on cash and short term investments. Revenues for 1990 were 37% below the \$7.5 million realized in 1989, due to the receipt of \$3.5 million in non-recurring payments in 1989, associated with the signing of new technology licensing and marketing agreements, which adversely affected 1990 in the comparison. Total revenues of \$7.5 million for 1989 were comprised of the sale of research services to Sterling, FICE and Bracco of \$2.2 million, non-recurring licensing fees of \$3.5 million and interest income of \$1.8 million.

CYTOGEN's operating expenses of \$26.2 million in 1991 were 19% above the \$22.0 million recorded during the comparable period in 1990. The operating expenses for 1991 continued to reflect CYTOGEN's ongoing product development program and preparation for launch in the United States of the OncoScint colorectal and ovarian imaging products. These activities required the allocation of resources for: obtaining the favorable recommendation of the Committee for Proprietary Medicinal Products; individual European country approvals; activities related to the U.S. regulatory process; and preparation for the initiation of Phase I human clinical trials of its cancer imaging products for breast and non-small cell lung cancer and Thromboscan, CYTOGEN's cardiovascular imaging agent using a molecular recognition unit. Research and development expenses principally associated with product development efforts increased to \$21.3 million in 1991 from \$16.9 million in 1990. Of these amounts, \$1.6 million was expensed in the fourth quarter of 1991 for the estimated process development expenditures associated with the purchase of monoclonal antibodies for CYTOGEN's OncoScint colorectal and ovarian products. Marketing, general and administrative expenses of \$4.8 million in 1991 were comparable to the \$4.9 million incurred in 1990. Because CYTOGEN is now preparing to market its first products using its own sales force (as well as through its co-promotion arrangement with Knoll), marketing, general and administrative expenses are expected to increase substantially in future periods.

CYTOGEN's operating expenses were \$22.0 million in 1990 as compared to the \$21.4 million recorded in 1989. Research and development expenses, principally associated with ongoing product development efforts, increased to \$16.9 million in 1990 from \$15.2 million in 1989. However, this increase was offset by planned spending reductions in marketing, general and administrative expenses to \$4.9 million in 1990, as compared to \$6.0 million reported in 1989 (which included a separately stated \$0.6 million construction in progress write-off).

The net loss of \$15.3 million for 1991 was 12% below the \$17.3 million loss reported in 1990. The loss per common share for 1991 was \$0.98 on 17.3 million average shares outstanding, as compared to \$1.36 per share on 14.0 million average shares outstanding in 1990, and included dividends on preferred stock which were equivalent to \$0.10 and \$0.12 per common share in 1991 and 1990, respectively. The increase in the average shares outstanding was due to the issuance of 2.3 million and 3.5 million shares of common stock in June 1991 and July 1990, respectively.

The net loss of \$17.3 million for 1990 was 24% above the \$14.0 million loss reported in 1989. The loss per common share for 1990 was \$1.36 and included dividends on preferred stock which were equivalent to \$0.12 per common share. For 1989, the loss per common share was \$1.18 and included dividends on preferred stock which were equivalent to \$0.02 per common share. The changes were in part due to the issuances of 3.5 million shares of common stock in July 1990.

At December 28, 1991, CYTOGEN had federal tax net operating loss carryforwards of approximately \$80,000,000. Pursuant to the Tax Reform Act of 1986, annual utilization of these loss carryforwards may be limited, since a cumulative change in ownership over a three-year period of more than 50% has occurred as a result of cumulative issuances of CYTOGEN's common stock and common stock equivalents. CYTOGEN believes, however, that this limitation will not have a material impact on the anticipated utilization of its total loss carryforwards.

LIQUIDITY AND CAPITAL RESOURCES

CYTOGEN's primary sources of cash have been the proceeds from the sale of its stock through public offerings and private placements, the sale of research services and fees paid under its license agreements and interest earned on its cash and short term investments. While CYTOGEN expects that revenues under its existing and anticipated licensing and marketing agreements will continue to be significant, it also expects to become progressively less dependent on those funding sources over time.

During the fourth quarter of 1991, CYTOGEN began supplying EuroCetus with product for limited market launch in Europe, currently scheduled during the first quarter of 1992. At the present time, CYTOGEN anticipates that it will receive milestone payments and revenues from U.S. sales of its first products in the second quarter of 1992, provided the requisite U.S. Food and Drug Administration approvals are received in a timely manner; however, there can be no assurance that CYTOGEN's product sales expectations, which provide for a gradual increase in product sales in 1992, will be realized. A failure to obtain government approvals for marketing CYTOGEN's first products in the United States would result in continued operating losses and would have a material adverse effect on CYTOGEN's financial condition. In such event, CYTOGEN may require additional financing.

CYTOGEN's cash and short term investments increased to \$54.5 million as of December 28, 1991, compared to \$39.8 million as of December 29, 1990. This increase is attributable to the sale in the second quarter of 1991 of an aggregate of 2,300,000 shares of common stock realizing net proceeds of \$31.5 million. CYTOGEN anticipates that its existing cash balance, together with funds it expects to receive from other sources, including contract revenues from the Development Agreement with CytoRad, will satisfy its current anticipated cash needs at least through 1993.

It is not expected that those cash resources will be sufficient to meet CYTOGEN's operating and capital requirements until product sales are of sufficient volume to generate positive cash flows from operations. Accordingly, in order to develop, manufacture and market all of its products effectively, CYTOGEN will require substantial additional cash. CYTOGEN intends to seek to raise funds from time to time through marketing and out-licensing agreements and through additional financings as market conditions permit. There can be no assurance as to CYTOGEN's success in obtaining additional funds.

As CYTOGEN implements its domestic product commercialization plans for the OncoScint colorectal and ovarian products, it has begun to commit the necessary resources to establish the marketing and sales capabilities in 1992 and thereafter. While these activities to date have not resulted in an increase in spending, CYTOGEN expects that the marketing, general and administrative expenses will increase substantially in future periods.

CYTOGEN has also entered into a co-promotion arrangement with Knoll to co-promote its early cancer imaging products in the United States. The agreement provides for milestone payments, sharing of sales revenues and certain expenses, and reimbursements to CYTOGEN for certain product development expenses.

CYTOGEN will also undertake a project in 1992 to create additional manufacturing capacity for monoclonal antibodies and support for production of commercial product. The project, costing approximately \$3 million, will be funded from CYTOGEN's existing cash balance. In addition, CYTOGEN has entered into contracts to purchase monoclonal antibodies having an aggregate cost of \$5.5 million for its OncoScint colorectal and ovarian products. As of December 28, 1991, CYTOGEN's remaining antibody purchase commitment was approximately \$5 million.

CYTOGEN's operating and capital requirements, as described above, may change depending upon several factors, including: (i) results of research and development activities; (ii) competitive and technological developments; (iii) the amount of resources which CYTOGEN devotes to clinical evaluations and the establishment of marketing and sales capabilities; (iv) the timing and cost of obtaining required regulatory approvals for its products; and (v) CYTOGEN's success in entering into, and cash flows derived from, new technology licensing, marketing and research agreements.

Statement of Operations

(All amounts in thousands, except per share data)

	1991	1990	1989
Revenues:			
Contract revenues	\$ 7,022	\$ 1,974	\$ 5,686
Interest income	3,829	2,727	1,782
	10,851	4,701	7,468
Operating Expenses:			
Research and development	21,293	16,942	15,179
Marketing, general and administrative	4,816	4,930	6,006
Interest expense	86	168	239
	26,195	22,040	21,424
Net Loss	(15,344)	(17,339)	(13,956)
Dividends on Preferred Stock	(1,725)	(1,725)	(163)
Net Loss to Common Stockholders	\$ (17,069)	\$ (19,064)	\$ (14,119)
Net Loss Per Common Share	\$ (0.98)	\$ (1.36)	\$ (1.18)
Weighted Average Common Shares Outstanding	17,345	13,971	11,994

The accompanying notes are an integral part of this statement.

Balance Sheet

(At December 28, 1991 and December 29, 1990, all amounts in thousands, except share data)

	1991	1990
Assets		
Current Assets:		
Cash and cash equivalents	\$ 8,956	\$ 6,149
Short term investments	45,550	33,686
Accrued interest receivable	781	691
Accounts receivable	1,424	316
Inventories	1,668	274
Other current assets	1,120	528
Total current assets	<u>59,499</u>	<u>41,644</u>
Property and Equipment:		
Land	1,884	1,884
Leasehold improvements	5,537	5,469
Equipment and furniture	2,750	2,283
	<u>10,171</u>	<u>9,636</u>
Less-Accumulated depreciation and amortization	<u>(5,299)</u>	<u>(4,281)</u>
Net property and equipment	<u>4,872</u>	<u>5,355</u>
Other Assets		
	<u>100</u>	<u>83</u>
	<u>\$ 64,471</u>	<u>\$ 47,082</u>
Liabilities and Stockholders' Equity		
Current Liabilities:		
Accounts payable and accrued liabilities	\$ 5,096	\$ 2,289
Current portion of long term debt	588	706
Accrued dividends on preferred stock	431	431
Total current liabilities	<u>6,115</u>	<u>3,426</u>
Long Term Debt	<u>—</u>	<u>588</u>
Deferred Charges	<u>346</u>	<u>625</u>
Commitments		
Preferred Stock, \$.01 par value, 5,400,000 shares authorized —		
\$2.50 Convertible Exchangeable		
Preferred Stock, 1,150,000 shares authorized,		
690,000 shares issued and outstanding	<u>17,250</u>	<u>17,250</u>
Redeemable Common Stock, 250,000 shares		
issued and outstanding, at redemption value	<u>2,000</u>	<u>2,000</u>
Common Stock and Accumulated Deficit:		
Common stock, \$.01 par value, 44,600,000 shares authorized,		
18,125,000 and 15,592,000 shares issued and		
outstanding in 1991 and 1990, respectively	<u>181</u>	<u>156</u>
Additional paid-in capital	<u>119,425</u>	<u>88,539</u>
Accumulated deficit	<u>(80,846)</u>	<u>(65,502)</u>
Total common stock and accumulated deficit	<u>38,760</u>	<u>23,193</u>
	<u>\$ 64,471</u>	<u>\$ 47,082</u>

The accompanying notes are an integral part of this statement.

Statement of Preferred Stock, Redeemable Common Stock, Common Stock and Accumulated Deficit

(All amounts in thousands, except share data)	Preferred Stock	Redeemable Common Stock	Common Stock	Additional Paid-in Capital	Accumulated Deficit
Balance, December 31, 1988	\$ —	\$ —	\$ 119	\$ 61,194	\$ (34,207)
Issued 600,000 shares of preferred stock	15,000	—	—	(1,437)	—
Issued 135,881 shares of common stock	—	—	2	1,004	—
Granted 20,000 shares of common stock	—	—	—	75	—
Issued 5,700 shares of common stock upon exercise of stock options	—	—	—	11	—
Issued 250,000 shares of redeemable common stock	—	2,000	—	—	—
Dividends on preferred stock	—	—	—	(163)	—
Net loss	—	—	—	—	(13,956)
Balance, December 30, 1989	15,000	2,000	121	60,684	(48,163)
Issued 90,000 shares of preferred stock	2,250	—	—	(133)	—
Issued 3,450,000 shares of common stock	—	—	35	29,451	—
Granted 22,500 shares of common stock	—	—	—	167	—
Issued 15,800 shares of common stock upon exercise of stock options	—	—	—	95	—
Dividends on preferred stock	—	—	—	(1,725)	—
Net loss	—	—	—	—	(17,339)
Balance, December 29, 1990	17,250	2,000	156	88,539	(65,502)
Issued 2,300,000 shares of common stock	—	—	23	31,516	—
Granted 22,000 shares of common stock	—	—	—	27	—
Issued 211,520 shares of common stock upon exercise of stock options	—	—	2	1,068	—
Dividends on preferred stock	—	—	—	(1,725)	—
Net loss	—	—	—	—	(15,344)
Balance, December 28, 1991	\$ 17,250	\$ 2,000	\$ 181	\$ 119,425	\$ (80,846)

The accompanying notes are an integral part of this statement.

Statement of Cash Flows

(All amounts in thousands)	1991	1990	1989
Cash Flows from Operating Activities:			
Net Loss	\$ (15,344)	\$ (17,339)	\$ (13,956)
Adjustments to Reconcile Net Loss to Cash			
Used for Operating Activities:			
Depreciation and Amortization	1,052	1,053	690
Stock Grants	30	65	75
Amortization of Deferred Charges	(304)	(220)	(150)
Changes in Assets and Liabilities:			
Accrued interest and accounts receivable	(1,198)	(43)	88
Inventories	(1,394)	(274)	—
Other current assets	(592)	(278)	175
Other assets	(17)	30	(15)
Accounts payable and accrued liabilities	2,807	(1,234)	604
Total adjustments	384	(901)	1,467
Net cash used for operating activities	(14,960)	(18,240)	(12,489)
Cash Flows from Investing Activities:			
Decrease (Increase) in Short Term Investments	(11,864)	(22,596)	9,430
Purchases of Property and Equipment	(877)	(1,950)	(1,735)
Net cash provided by (used for) investing activities	(12,741)	(24,546)	7,695
Cash Flows from Financing Activities:			
Proceeds from Sale-Leaseback Refinancings	333	1,540	277
Repayment of Long Term Debt	(706)	(706)	(706)
Increase in Deferred Charges	—	—	205
Proceeds from Issuance of Preferred Stock	—	2,117	13,563
Proceeds from Issuance of Common Stock	32,606	29,581	1,017
Proceeds from Issuance of Redeemable Common Stock	—	—	2,000
Dividends Paid on Preferred Stock	(1,725)	(1,457)	—
Net cash provided by financing activities	30,508	31,075	16,356
Net Increase (Decrease) in Cash and Cash Equivalents	2,807	(11,711)	11,562
Cash and Cash Equivalents, Beginning of Year	6,149	17,860	6,298
Cash and Cash Equivalents, End of Year	\$ 8,956	\$ 6,149	\$ 17,860

The accompanying notes are an integral part of this statement.

Notes to Financial Statements

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES:

Business CYTOGEN Corporation (the Company) is a biopharmaceutical company engaged in the development of proprietary systems utilizing monoclonal antibodies for the targeted delivery of diagnostic and therapeutic substances in human health care applications. The Company uses its patented and proprietary antibody "linker" technology to develop specific cancer diagnostic imaging and cancer therapeutic products, as well as certain other products. The Company has not yet received final regulatory approval for the sale of any of its products in the United States, and received approval for the sale of its first product in Europe in the third quarter of 1991. In order to develop, manufacture and market its products effectively, the Company will require additional financing until such time that product sales are of sufficient volume to generate positive cash flows from operations.

Fiscal Year The Company operates on a 52-53 week fiscal year ending on the Saturday nearest to December 31. References to 1991, 1990 and 1989 relate to fiscal years ended December 28, 1991, December 29, 1990 and December 30, 1989, respectively.

Short Term Investments Short term investments are stated at cost, which approximate market value, and consist primarily of corporate medium term notes.

Statement of Cash Flows The Company considers all highly liquid debt instruments with original maturities of three months or less to be cash equivalents. Cash paid for interest was \$101,000, \$173,000 and \$245,000 in 1991, 1990 and 1989, respectively.

Inventory The Company's inventory is primarily related to OncoScint CR103 and OV103 which are the Company's monoclonal antibody-based imaging agents for the diagnosis of colorectal and ovarian cancers. Inventory is stated at the lower of cost or market using the first-in, first-out method. As of December 28, 1991 inventories totaled \$1,668,000. Inventories consisted of the following: raw materials \$1,042,000, work in process \$73,000 and finished goods \$553,000. For 1990 inventory was \$274,000 and consisted substantially of raw materials. Realization of the Company's investment in inventory is dependent upon the successful marketing of its products.

Property and Depreciation Property and equipment are stated at cost. Leasehold improvements are depreciated on a straight-line basis over the lease period or the estimated useful life, whichever is shorter. Equipment and furniture are depreciated on a straight-line basis over five years. Expenditures for repairs and maintenance are expensed as incurred.

Revenue Recognition Contract revenues include the sale of research services and materials, milestone payments and licensing fees under collaborative agreements with third parties and revenue from other miscellaneous sources. Revenue from milestone payments is recognized when all parties concur that the scientific results stipulated in the agreement have been achieved and on cost-plus contracts when the costs are incurred.

Research and Development Research and development expenditures consist of projects conducted by the Company and payments made to sponsored research programs and consultants. All research and development costs are expensed as incurred. Research and development expenditures for customer sponsored programs were \$1,354,000, \$1,353,000 and \$1,561,000 in 1991, 1990 and 1989, respectively.

Loss Per Share Net loss per common share is based upon the weighted average common shares outstanding during each period. Common stock equivalents and other potentially dilutive securities are not included as their effect is antidilutive. Dividends on preferred stock (which were equivalent to \$0.10, \$0.12 and \$0.02 per common share in 1991, 1990 and 1989, respectively) are added to the net loss for the purpose of computing net loss per common share.

Reclassifications Certain reclassifications have been reflected in the 1990 and 1989 financial statements to conform with the 1991 presentation.

2. MAJOR CONTRACTS AND REVENUES FROM MAJOR CUSTOMERS:

Customers who contributed 10% or more of the Company's total contract revenues were as follows:

Customer	1991	1990	1989
Sterling Drug Inc.	14%	51%	26%
Farmitalia Carlo Erba S.r.l.	—	23	7
EuroCetus, N.V.	30	4	35
Eli Lilly and Company	—	—	18
Bracco S.p.A.	13	22	14
Knoll Pharmaceuticals	43	—	—

In 1985, Farmitalia Carlo Erba S.r.l. and the Company entered into a license and technology agreement. Under the agreement, the Company granted Farmitalia Carlo Erba S.r.l. an exclusive worldwide license to utilize the Company's proprietary monoclonal antibody-based delivery technology with certain cytotoxic compounds proprietary to Farmitalia Carlo Erba S.r.l. Under the agreement, contract revenues of \$461,000 and \$413,000 were recognized in 1990 and 1989, respectively.

In 1986, Eastman Kodak Company purchased 1,500,000 shares of common stock for \$15,000,000. The parties also entered into a license and technology agreement. Under the provisions of this agreement, the rights and obligations of which were assigned by Eastman Kodak Company to Sterling Drug Inc., contract revenues of \$971,000, \$1,004,000 and \$1,500,000 were recognized in 1991, 1990 and 1989, respectively.

In 1989, Eli Lilly and Company purchased 135,881 shares of common stock at a 25% premium to market under terms of an agreement signed in April 1989. Under the agreement, the Company granted Eli Lilly and Company a non-exclusive worldwide license to develop and market certain cancer therapy products using the Company's proprietary monoclonal antibody-based delivery technology.

In 1989, Bracco S.p.A. purchased 250,000 redeemable common shares at \$8.00 per share as part of a research agreement signed in September 1989. Under the agreement, Bracco S.p.A. paid an initial license fee and agreed to fund a study of possible applications of the Company's technology in the field of magnetic resonance imaging. Depending on the study results, Bracco S.p.A. may require the Company to redeem at cost the common shares purchased in 1989 for cash or be required to make a milestone payment and enter into negotiations for an exclusive worldwide license to the Company's technology for application with magnetic resonance imaging enhancement agents. Contract revenues of \$924,000, \$429,000 and \$272,000 were recognized in 1991, 1990 and 1989, respectively, under the agreement.

In 1989, EuroCetus, N.V. and the Company entered into an agreement which appoints EuroCetus, N.V. as the exclusive distributor of the Company's cancer monoclonal antibody-based diagnostic imaging products in Europe and Israel. The agreement provides for the Company to supply EuroCetus, N.V. with OncoScint and OncoTc finished

product. Under this agreement, contract revenues of \$127,000 and \$81,000 were recognized in 1991 and 1990. Licensing fees of \$2,000,000 were recognized in each of 1991 and 1989.

In 1991, the Company and Knoll Pharmaceuticals, which is jointly owned by BASF A.G. and Knoll A.G. entered into an agreement for the co-promotion of the Company's early cancer diagnostic imaging products in the United States. The agreement provides for up-front payments, sharing of sales revenues and certain expenses, and product development reimbursements.

3. REDEEMABLE PREFERRED STOCK:

In 1989, the Board of Directors authorized a series of 1,150,000 shares of \$2.50 Convertible Exchangeable Preferred Stock (the "Convertible Preferred Stock"). In December 1989, 600,000 of these shares were sold for \$25.00 per share, realizing net proceeds of \$13,563,000. In January 1990, an over-allotment option was exercised pursuant to which 90,000 additional shares of the Convertible Preferred Stock were sold on the same terms and conditions, realizing net proceeds of \$2,117,000.

The Convertible Preferred Stock is entitled to cumulative dividends of \$2.50 per share per year payable quarterly when, as and if declared by the Company's Board of Directors. Each share of Convertible Preferred Stock is convertible into 3.55 shares of common stock at the option of the holder; and is exchangeable at the option of the Company beginning October 15, 1991 into 10% convertible subordinated debentures due 2014 at the rate of \$25.00 principal amount of debentures for each share of Convertible Preferred Stock. The Company may also redeem the Convertible Preferred Stock for cash at any time on or after October 15, 1992 at an initial redemption price of \$26.75 per share, decreasing through October 15, 1999 to \$25.00 per share. Upon certain events involving a change of control of the Company, the holder has the option to redeem the Convertible Preferred Stock for cash at a redemption price of \$25.00 per share. Accordingly, the stock has been classified outside of common stock and accumulated deficit in accordance with the rules and regulations of the Securities and Exchange Commission.

4. COMMON STOCK:

In 1991, the Company sold 2,300,000 shares of common stock at \$14.75 per share, realizing net proceeds of \$31,539,000. In 1990, the Company sold 3,450,000 shares of common stock at \$9.25 per share, realizing net proceeds of \$29,486,000. See Note 2 for discussion of redeemable common stock.

5. RELATED PARTY TRANSACTIONS:

Consulting services are provided under an agreement with a company owned by the Company's principal stockholder who is also a member of the Board of Directors. The annual fee under the agreement is \$30,000.

The eight members of the Company's Scientific Advisory Board are stockholders and provide consulting services to the Company. Consulting fees paid to these individuals totaled \$52,000, \$85,000 and \$41,000 in 1991, 1990 and 1989, respectively.

6. STOCK OPTIONS AND GRANTS:

The Company has an employee stock option plan, shares of which are registered under the Securities Act of 1933, as amended. Under the plan, the Company is authorized to grant to employees incentive and non-qualified stock options to purchase an aggregate of 2,100,000 shares of common stock for which an equal number of shares has been reserved. Options granted under the plan, in order to qualify for incentive stock option treatment under federal tax laws, must provide for vesting over five years, an exercise term of ten years and an exercise price not less than the fair market value of the common stock on the date of grant. At December 28, 1991, 356,135 shares were available for granting further options. In addition, options for 1,505,720 shares were outstanding at \$1.00 to \$17.00 per share with an aggregate exercise price of \$12,215,000, of which options for 506,840 shares were exercisable. Options for 208,320,

13,300 and 5,700 shares were exercised during 1991, 1990 and 1989, respectively, at \$1.00 to \$10.75 per share. During 1991, 1990 and 1989, options for 34,880, 58,420 and 455,060 shares, respectively, were cancelled at \$3.88 to \$8.06 per share.

The Company also has various stock option plans to benefit both employees, non-employee directors and outside consultants. These plans authorize options to purchase an aggregate of 220,500 shares of common stock at an exercise price determined either by the plan or the fair market value of the common stock at the date of grant. At December 28, 1991, options for 58,800 shares were outstanding at \$3.88 to \$15.38 per share, of which options for 31,000 shares were exercisable. During 1991 and 1990, respectively, options for 3,200 and 2,500 shares were exercised under these plans at \$6.50 per share. Options for 250, 2,750 and 5,000 shares were cancelled during 1991, 1990 and 1989, respectively, at \$3.88 to \$6.50 per share.

In each of the years of 1991, 1990 and 1989, 20,000 shares of common stock were granted to an officer of the Company. In 1991 and 1990, respectively, 2,000 and 2,500 shares of common stock were granted to members of the Company's Scientific Advisory Board. The expense related to these commitments to grant shares of stock is being recognized over the period beginning with such commitment and ending with the actual grant.

7. PENSION PLAN:

The Company maintains a defined contribution pension plan. The plan covers all employees who are over 21 years of age and have completed one year of service. The contribution is determined by the Board of Directors each year and is based upon a percentage of gross wages. The plan provides for vesting over five years, with credit given for prior service. The Company also makes contributions to the plan under Section 401(k) in amounts which match up to 50% of the salary deferred by the participants. Pension expense was \$272,000, \$216,000 and \$182,000 for 1991, 1990 and 1989, respectively.

8. INCOME TAXES:

At December 28, 1991, the Company had for financial reporting and income tax purposes net operating loss carryforwards of approximately \$80,000,000. Such carryforwards will expire beginning in 1994 if not previously used. In addition, the Company has investment and research and development tax credit carryforwards. Pursuant to the Tax Reform Act of 1986, annual utilization of these loss and credit carryforwards may be limited, since a cumulative change in ownership over a three-year period of more than 50% has occurred as a result of the cumulative issuance of the Company's common stock and common stock equivalents. The Company believes, however, that this limitation will not have a material impact on the anticipated utilization of its total loss carryforwards.

9. LONG TERM DEBT:

In 1987, the Company entered into an unsecured revolving credit and term loan agreement which provides for the outstanding loan balance to be collateralized by cash should the cash and short term investments of the Company decline below \$15,000,000. On August 1, 1988, the \$3,000,000 balance on the revolving credit line was converted into a term loan, payable in monthly installments over 51 months. In 1988 and 1990, the agreement was amended to permit the issuance of standby letters of credit under which \$1,431,000 were issued as of December 28, 1991. Interest expense for this credit line was \$94,000, \$168,000 and \$239,000 in 1991, 1990 and 1989, respectively.

10. LEASES AND COMMITMENTS:

The Company leases its administrative and research facilities. Rent expense incurred on these leases was \$1,096,000, \$1,167,000 and \$1,019,000 in 1991, 1990 and 1989, respectively. Minimum future obligations under these leases total \$5,307,000 as of December 28, 1991 and will be paid as follows: \$1,363,000 in 1992, \$1,368,000 in 1993, \$1,352,000 in 1994, \$612,000 in 1995 and \$612,000 in 1996.

Notes to Financial Statements (continued)

At December 28, 1991, the Company was obligated to make minimum future payments under research and development contracts of \$1,118,000 through 1993. Under certain of the research and development contracts, the Company is obligated to pay royalties ranging from 1.5% to 9% on revenue from commercial products developed from the research.

In 1988, the Company entered into an equipment lease agreement providing a \$5,000,000 lease line. In 1990, the agreement was amended to provide for an additional \$2,000,000 lease line. Through December 28, 1991 the Company has refinanced certain furniture and equipment with \$5,711,000 in sale-leaseback financings against the lease line. The financings resulted in a deferred gain which is being amortized over the lease term of 45 months. The sale-leaseback financings are secured by \$1,431,000 in standby letters of credit provided under the revolving credit and term loan agreement. Minimum future obligations under these and other non-cancelable leases total \$1,984,000 as of December 28, 1991 and will be incurred as follows: \$990,000 in 1992, \$550,000 in 1993, \$421,000 in 1994 and \$23,000 in 1995.

In 1991, the Company entered into contracts to purchase certain raw materials for its colorectal and ovarian products. Approximately \$1.6 million was expensed in 1991 for the estimated process development expenditures associated with these products. As of December 28, 1991, the Company's remaining purchase commitment was approximately \$5 million.

11. ACCOUNTS PAYABLE AND ACCRUED LIABILITIES:

	1991	1990
Accounts payable	\$1,483,000	\$ 452,000
Process development	1,291,000	—
Professional and legal	142,000	200,000
Payroll	338,000	266,000
Research contracts and material	362,000	—
Recruiting and relocation	210,000	70,000
Pension	128,000	85,000
Bank overdraft	729,000	877,000
Other accruals	412,000	339,000
	\$5,095,000	\$2,289,000

12. SUBSEQUENT EVENT:

In February 1992, the Company and CytoRad Incorporated ("CytoRad"), completed a public offering of 3,500,000 units, each unit consisting of one share of callable common stock of CytoRad and one warrant to purchase one share of the Company's common stock. CytoRad will receive all of the approximately \$32.6 million net proceeds of the offering and is obligated to pay the Company substantially all such net proceeds. In connection with the offering, the company has licensed technology to CytoRad for the development of products and for the diagnosis and treatment of prostate and bladder cancers. CytoRad has contracted with the company, and will fund the development program for these products. The Company will recognize revenue from this arrangement net of amortization of warrants issued. The Company will also be reimbursed for certain costs incurred. The Company plans to market the products that are successfully developed and to pay CytoRad certain fees and royalties from such product sales. As of December 28, 1991, CytoRad owed the Company \$148,000 for registration and legal fees associated with the public offering.

Report of Independent Public Accountants

To CYTOGEN Corporation:

We have audited the accompanying balance sheets of CYTOGEN Corporation (a Delaware Corporation) as of December 28, 1991 and December 29, 1990, and the related statements of operations, preferred stock, redeemable common stock, common stock and accumulated deficit and cash flows for each of the three years in the period ended December 28, 1991. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of CYTOGEN Corporation as of December 28, 1991 and December 29, 1990, and the results of its operations and its cash flows for each of the three years in the period ended December 28, 1991 in conformity with generally accepted accounting principles.

ARTHUR ANDERSEN & CO.

Philadelphia, PA
February 21, 1992

Directors, Officers, and Advisors

Board of Directors

George W. Ebright Chairman

Age: 54 Service: 3 years
Chief Executive Officer
CYTOGEN Corporation

Fletcher N. Anderson^{2*}

Age: 61 Service: 4 years
President and
Chief Executive Officer
Chemtech Industries Inc.,
Retired

Robert F. Johnston²

Age: 55 Service: 11 years
President and Director
Johnston Associates Inc.
(a mergers, acquisitions and
venture capital firm)

Thomas J. McKearn, M.D., Ph.D.

Age: 43 Service: 10 years
President
CYTOGEN Corporation

William C. Mills III^{1*}

Age: 36 Service: 8 years
General Partner, The Venture
Capital Fund of New England

Dean P. Phypers¹

Age: 63 Service: 4 years
Senior Vice President and
Director, IBM Corporation,
Retired

John M. Pietruski²

Age: 59 Service: 2 years
President, Dansara Company
(a management consulting firm)
Chairman and Chief Executive
Officer, Sterling Drug Inc.,
Retired

Lewis Thomas, M.D.

Age: 78 Service: 7 years
President Emeritus
Memorial Sloan-Kettering
Cancer Center
Scholar-in-Residence
Cornell University
Medical College

Officers

George W. Ebright

Age: 54 Service: 3 years
Chairman, Board of Directors
Chief Executive Officer

Martin D. Cleary

Age: 46 Service: 6 years
Group Vice President
and Chief Financial Officer

James H. Geddes

Age: 51 Service: 1 year
Group Vice President,
Marketing and Sales

Thomas J. McKearn, M.D., Ph.D.

Age: 43 Service: 10 years
President

John D. Rodwell, Ph.D.

Age: 45 Service: 4 years
Vice President, Research and
Development

William J. Ryan, Esquire

Age: 58 Service: 5 years
Vice President, General Counsel
and Secretary

Scientific Advisory Board

John D. Rodwell, Ph.D. Chairman

Age: 45 Service: 3 years
Vice President,
Research and Development
CYTOGEN Corporation

Tasuku U. Honjo, M.D. +

Age: 50 Service: 2 years
Professor,
Department of Medical Chemistry
Kyoto University

Fred Karush, Ph.D.

Age: 77 Service: 9 years
Professor Emeritus,
Department of Microbiology
University of Pennsylvania

Thomas J. McKearn, M.D., Ph.D.

Age: 43 Service: 10 years
President
CYTOGEN Corporation

Peter C. Nowell, M.D.

Age: 64 Service: 2 years
Professor,
Department of Pathology and
Laboratory Medicine
University of Pennsylvania
School of Medicine

Lewis Thomas, M.D.

Age: 78 Service: 7 years
President Emeritus
Memorial Sloan-Kettering
Cancer Center
Scholar-in-Residence
Cornell University
Medical College

Peter A. Ward, M.D.

Age: 57 Service: 9 years
Professor and Chairman,
Department of Pathology
University of Michigan
Medical School

Willet F. Whitmore, Jr.

Age: 74 Service: 1 year
Physician-Director
Surgical Day Hospital
Memorial Sloan-Kettering
Cancer Center

¹Member of Audit Committee

²Member of Compensation Committee

*Denotes Chairman of Committee

+Dr. Honjo resigned from the Scientific Advisory Board effective as of February 12, 1992.



CYTOGEN CORPORATION

600 College Road East CN5308

Princeton, New Jersey 08540-5308

Corporate Information

ANNUAL MEETING OF STOCKHOLDERS

Tuesday, May 19, 1992, 10:15 a.m.

Scanticon-Princeton Conference Center & Hotel

Princeton Forrestal Center

100 College Road East

Princeton, New Jersey 08540

SEC FORM 10-K

A copy of the Company's annual report to the Securities and Exchange Commission on Form 10-K (not including exhibits) is available without charge upon written request to:

Corporate Secretary

CYTOGEN Corporation

600 College Road East CN5308

Princeton, New Jersey 08540-5308

REGISTRAR AND TRANSFER AGENT

Mellon Securities Trust Company

120 Broadway - 33rd Floor

New York, New York 10274

TRADING SYMBOL AND PRICE RANGE

The Company's stock trades in the National Market System under the NASDAQ symbols CYTO for its Common Stock and CYTOP for its Preferred Stock. The high and low prices shown were compiled from the Monthly Statistical Report provided the Company by the National Association of Securities Dealers, Inc. At December 28, 1991 there were 2,141 stockholders of record of the Company's Common Stock and 41 stockholders of record of the Company's Preferred Stock. The regular quarterly dividends of \$.625 were paid on the Company's Preferred Stock on January 15, 1991, April 15, 1991, July 15, 1991, and October 15, 1991.

COMMON STOCK

1991	High	Low
First Quarter	18	10 1/2
Second Quarter	18 1/2	13 1/2
Third Quarter	20 1/2	12 1/2
Fourth Quarter	19 1/2	13 1/2

1990	High	Low
First Quarter	6 1/2	5 1/2
Second Quarter	9 1/2	5 1/2
Third Quarter	12	7 1/2
Fourth Quarter	11 1/2	7 1/2

PREFERRED STOCK

1991	High	Low
First Quarter	63	38 1/2
Second Quarter	65 1/2	51 1/2
Third Quarter	72 1/2	46 1/2
Fourth Quarter	69	52 1/2

1990	High	Low
First Quarter	26 1/2	23 1/2
Second Quarter	35 1/2	24
Third Quarter	44 1/2	31 1/2
Fourth Quarter	43 1/2	29

